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**Midterm Evaluation
Egypt Cost Recovery Programs
For Health Project
Project No 263-0170**

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Table of Contents

Acronyms and Abbreviations	111
Executive Summary with Major Conclusions and Recommendations	v
I Introduction	1
A Project Context Situation in Egypt	1
B Project Description	1
C Project Goal, Purpose, Component Goals and End of Project Status Indicators	3
II Evaluation Design	5
A Purpose of the Evaluation	5
B Evaluation Team Composition	5
C Evaluation Methodology	6
III Findings	7
A General Findings	7
1 System-wide Perspective	7
2 Alternative Financing Methods, Managed Care, and Quality Improvement	7
3 Sustainability and Capacity Building	8
4 Redirection of Uncommitted Project Resources	9
B Component One—Cost Recovery Systems	9
1 Inputs, Outputs and Purpose	9
2 Accomplishments to Date	10
3 Issues, Conclusions and Recommendations	13
C Component Two—Improving Management Practices of the Health Insurance Organization and the Curative Care Organization	32
1 Inputs, Outputs and Purpose	32
2 Accomplishments to Date	34
3 Major Issues Findings, Conclusions and Recommendations	36
D Component Three—Expand Private Sector Financing of Individual and Group Practices and Develop Alternative Managed Care Models	53
1 Inputs, Outputs and Subpurpose	53
2 Private Sector	54
3 Credit Guarantee Company (CGC)	55

	4	Managed Care	58
	5	Suez Canal University - Faculty of Medicine	59
	6	Medical Syndicate	60
E		Overall Project Design, Management And Resource Allocation Issues	62
	1	Project Refocus	62
	2	Development and Improvement of Managed Care Organizations	64
	3	Project Management	65
IV		General Project Conclusions	69
V		General Project Recommendations	73

TABLES

TABLE 1	COMPARISON OF KEY INDICATORS OF 1988 PP AND 1993 PP SUPPLEMENT
TABLE 2	PHASE A PILOT COST RECOVERY HEALTH CARE FACILITIES, CAIRO, FEBRUARY 1996
TABLE 3	THE COST RECOVERY MODEL AND THE FIVE PILLARS OF TOTAL QUALITY MANAGEMENT
TABLE 4	SUMMARY OF INPUTS FOR COMPONENT TWO

ANNEXES

ANNEX 1	Evaluation Scope of Work
ANNEX 2	Logical Framework
ANNEX 3	Contractor Matrix
ANNEX 4	Bibliography of Documents Consulted
ANNEX 5	List of Persons Interviewed
ANNEX 6	Response to Specific Questions in Scope of Work
ANNEX 7	Glossary of Terms Related to Managed Care

Acronyms and Abbreviations

AID	U S Agency for International Development
AID/W	U S Agency for International Development/Washington Headquarters
AIP	Annual Implementation Plan
BDI	Birch and Davis International, Inc (sub-contractor to URC)
BOT	Board of Trustees
CCC	Cambridge Consulting Corporation
CCO	Curative Care Organization
CGC	Credit Guarantee Company
CRHP	Cost Recovery Programs for Health Project
DDM	Data for Decision Making (AID/W project with Harvard University)
DPS	Data Processing Services Company (sub-contractor to BDI)
DSME	Decision Support and Monitoring and Evaluation Systems
EMS	Egyptian Medical Syndicate
EOPS	End of Project Status
ESQA	Egyptian Society for Quality Assurance
FIP	Facility Implementation Plan
FMA	Finance Management and Accountant
FY	Fiscal Year
GOE	Government of Egypt
HIO	Health Insurance Organization
HFSP	Health Financing and Sustainability Project (AID/W project)
HMO	Health Maintenance Organization
IEC	Project Directorate Marketing Department
IRM	USAID's Internal Information Technology Review Board
LE	Egyptian Currency
LOP	Life of Project
MIS	Management Information System
MOH	Ministry of Health
MQA	Medical Quality Assurance
MSD	Management Systems Department
ND	Nursing Department
PACD	Project Activity Completion Date
PD	Project Directorate
PIL	Project Implementation Letter (AID Document)
PIO	Pensioners Insurance Organization
PP	Project Paper (AID document)
QA	Quality Assurance
RFP	Request for Proposals
SCU	Suez Canal University
SCU-FOM	Suez Canal University - Faculty of Medicine
SIO	Social Insurance Organization

SMIP	Student Medical Insurance Program
TA	Technical Assistance
URC	University Research Corporation
USAID	U S Agency for International Development
WHIC	Washington Healthcare International Corp (sub-contractor to URC)

Executive Summary

The Cost Recovery Programs for Health Project (CRHP) was approved by the United States Agency for International Development (USAID) Mission in Egypt in 1988 following two years of discussion and planning with the Egyptian Ministry of Health (MOH). The purpose of the project, as revised in the 1993 Project Paper Supplement, is to broaden and diversify approaches for financing personal health services, with the goal to enhance the quality, sustainability, accessibility, and affordability of health services for the Egyptian people. Also in 1993, the project was extended to September 1998 and USAID funding was reduced to \$78.5 million plus a local currency grant equivalent to \$10 million. The revised project includes three components with the following sub-purposes:

- ▶ Component One To develop and test cost recovery systems in a minimum of five pilot MOH facilities as a model for country-wide application
- ▶ Component Two To improve the efficiency, utilization, and management practices of two existing cost recovery organizations
- ▶ Component Three To expand private sector financing of individual and group practices and develop alternative prepaid and managed care models

In January 1996, a midterm evaluation team was assembled to

- Evaluate the project's progress in achieving its objectives, as revised in the 1993 Project Paper Supplement,
- Identify any strengths and weaknesses in project implementation,
- Identify any major institutional and/or policy changes which have implications for project design, and
- Make recommendations concerning project revision or amendment

During the team's visit to Egypt (January 11- February 8, 1996), they found that the CRHP has made **several notable achievements**. Most importantly, there is growing, if not widespread, awareness and support for health reform within the MOH and at the highest levels of government. Over the life of the project (LOP), the values of decentralized decision making have become more clearly understood, and experience has been gained in building institutional capacity through strengthening management and improving the quality of services provided. In

addition, working management information systems have been developed that have potential application throughout the health system

The CRHP is an ambitious project, with great potential and import for the Egyptian health system. Despite the attainment of significant accomplishments, some of which are mentioned above, in other areas progress has been uneven and achievements have fallen short of expectations. The project continues to be constrained by an unintegrated design, a burdensome array of deliverables, fragmented technical assistance, and a disjointed management structure. Even with its weaknesses, however, the Evaluation Team believes that, in the time remaining, **the project can begin to lay the foundations for more managed care oriented reforms in the next Egyptian health project if its efforts and resources are refocused on the following achievable objectives which are compatible with the existing project strategic objectives**

- ▶ Documentation of a simplified model of cost recovery that emphasizes quality improvement and management strengthening, with less emphasis on the full development and implementation of the eleven modules
- ▶ Application of the Management Information System (MIS) technology and training capacities, developed for the Health Insurance Organization (HIO), to a broader array of MOH facilities, HIO-contract, and the Curative Care Organization (CCO) facilities
- ▶ Development of the organizational and managerial capacity of HIO and CCO to apply systems improvements in maximizing their organizational potential and clarifying their roles as major players in Egypt's health system
- ▶ Building a sustainable capacity within the MOH for directing health system reform by creating a forum for discussing major issues of health policy, such as financing alternatives, managed care, capitated payments and insurance, targeting governmental subsidies, and the role of the private sector

These objectives cut across project components, using the achievements and learnings from one component to support efforts in other components, and providing stronger integration of all component activities toward a common goal of preparing Egypt for more dramatic systemwide health care reform. To be successful, project management will need to place a greater emphasis on coordinating and clarifying the authorities and relationships of the USAID Project Officer, the Project Director, and the Chiefs of Party of the principal contractors, as they relate to each other and the three project components, the MOH, the HIO, and the CCO. The strategic objective of the current project should not be changed, given the short time remaining in the project and the difficulty of modifying project documentation. The recommended move toward managed care is only conceptual at this stage since there is no MOH decision to do so.

In conducting its study, the Evaluation Team was asked to address a number of questions related to the project in general and each project component specifically. Annex 6 includes the Team's detailed response to these questions. In summary, **the Evaluation Team offers the following major conclusions and recommendations**

A GENERAL

THE PROJECT SHOULD CONTINUE While project objectives have not been achieved, a few significant accomplishments are readily apparent. Greater support for health reform, experience in institution strengthening, and MIS developments all contribute to preparing Egypt for additional advances in the future. In the short time remaining in its life, the project can build on its accomplishments by simplifying the cost recovery model, strengthening HIO and CCO capacities, and enriching the dialogue on policy issues and financing alternatives. Furthermore, to achieve greater integration among all project components, project management should emphasize cross-component communication and coordination.

B COMPONENT ONE

THE COST RECOVERY MODEL AS CONCEIVED IS NOT VIABLE AND SHOULD BE SIMPLIFIED Several factors cast doubt on the likelihood that the Cost Recovery (CR) Model as now conceived for Phase A, can, or should be, widely replicated. It is poorly and unclearly defined and overly complex, the capital needed for broad scale renovations and equipment purchases is not readily available, a greater emphasis on the management of quality care and quality management is needed if substantive improvements are to occur, and a streamlined, less technology-intensive approach to introducing managerial improvements is needed if the effort is to be sustained with local expertise. The Cost Recovery Model for Phase B should be simplified to focus on elements that contribute most significantly to successful cost recovery: organizational independence, managerial accountability, quality improvement, and basic accounting capabilities. Efforts should focus on documenting implementation methodologies and training programs that have proven their usefulness in Phase A. Further development of the eleven modules should be de-emphasized.

IN THE SIMPLIFIED COST RECOVERY MODEL, MEDICAL QUALITY ASSURANCE (MQA) SHOULD BE EMPHASIZED The product of health care facilities is medical/clinical services. Ethically, the CRHP should result in a real and direct improvement of those services. The Cost Recovery Model addresses the product through improving the performance of nurses, infection control, renovating and equipping facilities, and MQA. The establishment of a proficient MQA program does not seem to have received the same emphasis, nor is it receiving a similar level of effort as

the other elements MQA has been initiated at only one facility Specific MQA activities should be initiated at all cost recovery facilities

The concept of quality improvement that has developed at the five Phase A project sites is that it is generally viewed to be a result of managerial improvements, physical facility and equipment renovations (i.e., new and specialized medical diagnostic and therapeutic equipment), and marketing While these elements contribute to establishing a conducive environment for quality medical care, they do not automatically produce it Nor does the absence of one or more of the elements necessarily impede the delivery of quality medical care A more active emphasis on MQA will help to rectify these misperceptions

PHASE B SHOULD PROCEED BUT ITS OBJECTIVES SHOULD BE REDEFINED Although Phase A has failed to achieve many of its objectives, nevertheless much has been learned Renovations and equipment have been delayed, the modules have been too numerous and complex to be fully implemented in any pilot facility, there has been little sharing of experience from one locale to another, implementation methodologies have been poorly documented, and only a couple of pilot facilities have shown even a marginal increase in revenues Still, as indicated, much was learned in Phase A that can now be applied in redefining the Cost Recovery Model

The objective of Phase B should be to document and test a more viable model of institutional strengthening that can be adapted to other facilities using local resources and expertise This revised model should be applied and tested in a wider array and variety of pilot facilities that are more representative of Egypt's public health facilities, including HIO, HIO-contract, and CCO facilities as well as MOH facilities Work should continue at Phase A facilities, but efforts to finalize the eleven modules should be de-emphasized as described previously

C. COMPONENT TWO

HIO'S INFORMATION TECHNOLOGY AND TRAINING SHOULD BE LEVERAGED TO CCO AND MOH FACILITIES Roughly 40 percent of the project's budget has been allocated to MIS activities To date, CRHP has supported software development by three separate groups the Project Directorate (PD), for MOH facilities, Maximus, for the HIO, and Data Processing Systems (DPS), a subcontractor to Birch and Davis International (BDI), for CCO prototypes Within a few weeks, USAID is expected to award a contract for a fourth CRHP software development effort, again on behalf of CCO All of this software includes components intended to enhance the management of health care facilities The HIO/Maximus effort provides the most robust and complete facility management system of those developed to date and should be adapted for use at MOH and CCO facilities Task five of the University Research Corporation (URC) contract, which calls for institutionalization of training in MIS across all components

should be eliminated from the contract, since training in MIS operation has already been institutionalized at HIO

HIO SHOULD BE ASSISTED IN DEFINING ITS ROLE AS A MAJOR PLAYER IN EGYPT'S HEALTH CARE SYSTEM HIO, with its nascent managed care structure and its growing mandate to provide health care to a large portion of the population, will clearly play an important role in health sector reform. Working with HIO is obviously a much larger undertaking than simply providing an MIS, and CRHP has already begun to explore the potential. Maximus has been providing assistance in reorganization since the spring of 1995, and at the end of 1995 URC posted a long term advisor to assist in strategic planning and policy development. CRHP should further expand its assistance in planning and policy development by commissioning special studies from the Data for Decision Making Project (DDM), and by making use of the information beginning to come from the MIS. By sponsoring colloquia and seminars, CRHP can both disseminate information and include MOH, private sector, and academic expertise in the health sector reform process. These initiatives will require extension of resources and activities originally targeted for Components One and Three. The transition to managed care requires automation, both to isolate potential cost containment methods, and to identify practices that lead to improved long-term health outcomes. The HIO MIS provides a solid foundation to improve HIO's ability to pay for, and to provide, health services.

SUPPORT TO CCO SHOULD BE REDIRECTED TO ADAPTING HIO INFORMATION TECHNOLOGIES AND DEVELOPING CCO'S MANAGERIAL CAPACITIES USAID is about to award a contract for development of a "state-of-the-art" MIS for CCO. It is the consensus of the Evaluation Team that this procurement action should be terminated. CCO is unlikely to take full advantage of the MIS, because CCO does not appear to be interested in improving its management techniques, and because the quality assurance system required to use the information technology is not in place. In lieu of a separate system, CCO should be offered the HIO/Maximus system and participation in the organizational, financial, and quality management training already proposed for MOH and HIO facilities. The "knowledge base" of protocols and medical information described in the RFP should be provided to all CRHP facilities by purchasing a selection of commercially-available digital medical resources.

D COMPONENT THREE

THE CREDIT GUARANTEE CORPORATION'S (CGC) IMPACT AND FUTURE ROLE IN PRIVATE SECTOR DEVELOPMENT SHOULD BE ASSESSED The importance of CGC's role in the health care system is uncertain. Studies should be undertaken to assess the need for credit among private providers, USAID's and MOH's leverage in influencing the role and growth of the private sector, the success of the CGC in influencing private sector investments, and how CGC might play a role in private sector development, including the possibility of creating a revolving fund to

support loan guarantees to MOH facilities for financing renovations and capital purchases. One goal of Component Three is to expand the delivery of health care through the private sector. Much of the analysis needed to determine if and how the private sector should be expanded is not available. URC should build upon the previous DDM work in this area and closely collaborate with DDM in completing further studies. These studies should include an examination of individual private providers, hospitals, and pharmacists. Once the current situation is better understood, URC should begin a dialogue within both USAID and the MOH about the role of the private sector and possible options for influencing this sector. Attention should be given to issues of equity and quality.

SUPPORT TO THE SUEZ CANAL UNIVERSITY-FACULTY OF MEDICINE (SCU-FOM) AND THE MEDICAL SYNDICATE (MS) SHOULD BE LIMITED. Efforts to establish an HMO at the SCU have been underway for many years, progress has been slow, and an HMO is not likely to be operational by the time the CRHP ends. Conditions have changed considerably since the idea of the HMO was presented, including faculty changes and increased competition by health services providers in the area. Furthermore the University's level of commitment has fluctuated. Until the university authorities demonstrate greater commitment and obtain the necessary legal status for the HMO, the level of URC technical assistance should not be increased. Any further assistance should be linked to performance and should utilize materials and training opportunities developed for the MOH, CCO, and HIO.

Expansion of the MS health insurance plan is neither feasible nor desirable under the CRHP. It is doubtful that the program can be expanded and remain financially viable. Furthermore, encouraging the development of multiple insurance plans will lead to greater fragmentation of the health insurance sector and encourage a two-tiered system of health care. However, the MS will be a powerful group as the health sector is reformed. In addition the MS has incorporated a number of managed care concepts into their plan and is clearly a valuable source of experience and information. The MS should be encouraged to share its experience through seminars, conferences, training programs, and the provision of consulting services. In return, URC should assist the MS to improve its system by providing access to management training, software, and other materials produced for the CCO, HIO, and MOH.

E PROJECT MANAGEMENT

SUSTAINABILITY AND CAPACITY BUILDING SHOULD BE STRESSED. Little time remains in the project in which to develop the Egyptian expertise needed to sustain and advance health care system reforms. Each of the contractors is devoting considerable effort to training of counterpart staff. The evaluation team wishes to emphasize the importance of this training to overall project success. Much of the work done by the Cambridge Consulting Corporation (CCC) on defining various management systems was misdirected and inappropriate. During that time there was a

strong “deliverable” orientation rather than a “developmental” orientation for the project. The recent exercise to develop an Annual Implementation Plan seemed to illustrate the “deliverables” orientation again. The plan document should reflect the collaborative thinking of the various participants. The benefits of the annual plan are in negotiating the numerous elements and reaching understanding and support. Much of the annual plan’s potential benefit seemed shorted because of the press of time.

In addition, a forum should be created where representatives of MOH, CCO, HIO, and even the private sector, academia, and other governmental ministries can meet together informally to study and discuss issues of health policy, financing, and restructuring, and their relevance to Egypt. The goal should be to develop an understanding of health policy issues and reforms at national, regional, and institutional levels.

THE ROLES, RELATIONSHIPS, AND AUTHORITIES OF THE PROJECT OFFICER, THE PROJECT DIRECTOR, AND CONTRACTOR CHIEFS OF PARTY SHOULD BE CLARIFIED. Currently contractor responsibilities are fragmented across project components and there is a lack of coordinated direction from the Project Officer. Responsibilities and authorities of the Project Officer, Project Director, and Chiefs of Party regarding development, implementation, and institutionalization of the CRHP remain unclear. Lack of understanding of mutual roles among contractors was illustrated in several ways. The two MIS contractors and counterpart organizations had limited information about each other and about their similar efforts. Pilot hospital development was proceeding with only cursory understanding about what might be applicable from the HIO and CCO experiences, and there seemed to be a long-standing gap between the Egyptian team members and their U.S. counterparts, a situation that was being addressed by URC during the visit of the Evaluation Team. The USAID Project Officer should direct and coordinate the development, implementation, and institutionalization of the work done by the three USAID principle contractors. Coordination could be enhanced through an additional regular meeting of the Project Officer and all of the Chiefs of Party of the principle contractors. The Contracts Officer should attend these meetings at least once a month. The Project Officer must provide timely inspection, feedback, and acceptance of deliverables.

In sum, the Evaluation Team feels that, in its last 30 months of life, and in spite of its difficulties to date, the Cost Recovery Programs for Health Project can still make an important contribution toward reforming Egypt’s health care system, and provide valuable lessons for similar efforts in other developing countries.

I. Introduction

A PROJECT CONTEXT SITUATION IN EGYPT

In the mid-1980s, Government of Egypt (GOE) policy guaranteed free health care to all citizens through a network of some 2,000 health clinics and 225 hospitals operated by the Ministry of Health (MOH). The “free health care for all” policy was intended to protect the poorer elements of society, but resulted in MOH facilities being poorly staffed and equipped to provide acceptable quality health services to any segment of Egyptian society. Budget limitations, a rapidly growing population, the inability to charge fees for services, and a personnel policy of hiring all graduated physicians, were identified in the Project Paper (PP) and the 1993 PP Supplement as major constraints to improving health care. The MOH budget represents only 1.8% of GOE expenditures annually, even though the GOE policy accords high priority to providing health services for all Egyptians. The MOH budget and staffing are heavily oriented to hospital-based curative care. With a policy of hiring all graduated physicians and with limited capability to reduce total staffing, salaries now account for 80% of the MOH operational budget. Facility maintenance has suffered, making MOH facilities less attractive to consumers as a source of health services.

USAID policies in the late 1980s encouraged field missions to utilize the private sector to assume functions formerly considered to be governmental responsibilities. Among these policies was one encouraging greater use of private sector mechanisms to stimulate improvements in health care.

B PROJECT DESCRIPTION

The Egypt Cost Recovery Programs for Health Project (CRHP) was approved by USAID in September 1988 as an eight year project. Planning for the project began in 1984 when a Project Steering Committee (SC) was organized with membership exclusively from the MOH. USAID staff later initiated steps to prepare the PP. The project goal was to enhance the quality, sustainability, accessibility, and affordability of health services for the Egyptian people by establishing a rational financial basis for the health sector through cost recovery systems. The purpose of the project was to broaden and diversify approaches for financing personal health services in Egypt.

The project had three main components

- 1 Develop and test cost recovery systems in MOH facilities as a model for country-wide application
- 2 Improve the management, efficiency, and utilization of existing cost recovery organizations
- 3 Expand private sector financing of individual, group, and prepaid care practices

Following nearly four years of limited project activity and growing frustration, a review of the project was completed in April 1992. Based on the review team's recommendations, a PP Supplement was drafted and approved on August 21, 1993. It included major downward revision of anticipated project outcomes, especially for Component One mentioned above. The PP Supplement included a significant reallocation of USAID funds among the three project components as well as modifications in the project goal, purpose, component sub-goals, and end of project status (EOPS) indicators. USAID's contribution to the project was reduced while the estimated host country contribution was increased. The project was extended two years to September 30, 1998.

A Project Directorate (PD) was to be established to manage and implement Component One under the supervision of the Minister of Health. The PD was envisioned as a temporary entity to establish policies, develop guidelines, and test the cost recovery program in a limited number of facilities. By the end of the project, its functions would be transferred to existing units within the MOH. Activities under Component Two would be implemented through the existing administrative structure of the HIO and CCO. Funds for the Credit Guarantee Company (CGC) would be channeled through the Ministry for International Cooperation.

The PP anticipated that a prime contractor would be selected through a competitive bidding process to assist the PD in implementing all three components. Due to major disagreements between USAID and MOH staff about the purpose and implementation plans for the project, as well as almost annual turnover of the director of the Project Directorate, no prime contractor was selected. A buy-in to the AID/W Health Financing and Sustainability Project (HFS) provided access to technical assistance through Abt Associates, Inc. to undertake additional background and policy studies. In mid-1991, an exchange of letters between USAID and the MOH provided a common commitment and understanding of the CRHP. A USAID-sponsored project review undertaken in March 1992 led to two major actions.

First, USAID initiated a "bridge" contract with Cambridge Consulting Corporation (CCC) to provide technical assistance and organize some training activities until a prime contractor could

be identified. The bridge proved to be a long one, lasting from November 1992 through July 1995.

Secondly, USAID prepared and approved a PP Supplement in August 1993. The PP Supplement sought to clarify the overall rationale and strategic objectives of the project, define a subpurpose for each of the three components, clarify the specific objectives and scope of activities for Component One, and readjust the project budget.

Finally, in May 1995, USAID awarded the prime contract to University Research Corporation (URC) to take responsibility for Component One and part of Component Three and to assume coordination responsibility for all three project components.

The redefined project goal, purpose, component subgoals and EOPS are stated in the following section.

C PROJECT GOAL, PURPOSE, COMPONENT GOALS, AND END OF PROJECT STATUS INDICATORS

The following table highlights the project goal, purpose, component goals, end of project status indicators, outputs and inputs as described in the 1988 PP and the 1993 PP Supplement.

TABLE 1 - COMPARISON OF KEY INDICATORS OF 1988 PP AND 1993 PP SUPPLEMENT

Please refer to Annex 3 for a summary of the contractors utilized to date for the CRHP, the major responsibilities of each contractor, contract amounts, and contract dates.

ACTIVITY	1988 PROJECT PAPER	1993 PROJECT PAPER SUPPLEMENT
Project Goal	Improve the health of the Egyptian people by enhancing the quality, availability, sustainability, and accessibility of health services.	Enhance the quality, sustainability, accessibility, and affordability of health services for the Egyptian people.
Project Purpose	Establish a sound financial basis for the health sector through cost recovery systems.	Broaden and diversify approaches for financing personal health services in Egypt.
Component One-Purpose	Implement policy changes and develop necessary institutional systems to convert MOH hospitals and polyclinics to user fee/cost recovery systems.	Develop and test cost recovery systems in MOH facilities as a model for country wide application.
Component One EOPS	80% of 50 cost recovery facilities achieve operating self sufficiency.	a. Increased proportion of total health care expenditures financed by private sector payments. b. Facilities will be covering 100% of nonpersonnel operating costs, 80% of equipment depreciation, and 30% of building depreciation from private sector payments.

ACTIVITY	1988 PROJECT PAPER	1993 PROJECT PAPER SUPPLEMENT
Component One Outputs and Indicators	Convert 40 MOH hospitals and 10 polyclinics to user fee/cost recovery systems	a Demonstration of successful cost recovery operations Indicator A minimum of 4 MOH hospitals and one MOH polyclinic converted to cost recovery operations b Technical and management capability in place within the MOH to replicate cost recovery model to other health facilities Indicator CRHP Directorate staffed with MOH personnel experienced in cost recovery c A system established in the MOH Planning Directorate to track public sector curative and preventive health expenditures Indicator Information available to MOH decision makers
Component One Inputs	\$45 million	\$36 713 million
Component Two Purpose	Improve management practices and operational efficiency at the HIO and CCO	Improve the efficiency, utilization, and management of existing cost recovery organizations (HIO and CCO)
Component Two - EOPS	Improved cost-effective services provided to 2.5 million people in HIO and CCO facilities	Improved cost-effective services being provided to 20 million people through HIO and CCO facilities
Component Two Outputs	Operational MIS systems in place at HIO and CCO facilities	a MIS systems installed and being utilized at HIO and CCO facilities for improved management, administration, finance and marketing Indicator MISs installed reports being generated and utilized for decision making b Cost containment and system efficiency leading to expanded coverage by both HIO and CCO Indicator 25% increase in utilization of HIO and CCO facilities
Component Two Inputs	\$10 million	\$34 908 million
Component Three Purpose	Support expansion of private sector health practitioners and develop prepaid group practices	Expand private sector financing of individual group and prepaid health care practices
Component Three EOPS	45 000 people use new prepaid health care services	100 000 additional people using private sector prepaid health care services
Component Three Outputs and Indicators	a Capitalized credit guarantee fund to guarantee loans by banks to private health practitioners established by the Credit Guarantee Company for Small Scale Enterprise (CGC)	a Credit guarantee fund through CGC operational b Improved commercial banking system providing financial services to health care providers Indicator 10 commercial banks actively participating c Increased numbers of new or expanding private sector health care providers particularly in rural areas and secondary cities Indicator 5 000 loans to new or expanding private sector health care providers d Viability of new or expanded practices Indicator Default rate of no more than 10% e New private managed care systems (i.e., HMO like schemes) Indicator Two new schemes
Component Three Inputs	\$5.5 million plus \$33 million for capitalization of CGC loan guarantee fund	\$2 563 961 plus LE equivalent of \$10 million for CGC loan guarantee fund
USAID Project Management (Audits, assessments and evaluations)	\$1.5 million	\$1 768 million
Total USAID Funding	\$95 million	\$78.5 million and LE equivalent of \$10 million
Total Egyptian Funding	\$17.3 million	\$35.24 million
PACD	Sept 30 1996	Sept 30 1998

II. Evaluation Design

A PURPOSE OF THE EVALUATION

The purpose of this Midterm Evaluation of the Cost Recovery Programs for Health Project (CRHP) is to assess the continuing validity of technical, administrative, social, cultural, and economic assumptions made in the project design, as revised in the PP Supplement, and to review progress to date. The evaluators were asked to pay particular attention to the phased performance disbursement design which spells out specific objectives for use in reaching decisions concerning continued next phase funding or design modifications. The evaluators were also asked to identify constraints to the achievement of project benchmarks or indicators and support development of practical solutions to persistent problems affecting the pace of project implementation. Finally, the Evaluation Team was asked to review the effectiveness of assistance provided under the numerous project-funded contracts and agreements in supporting implementation of activities under the three project components.

B EVALUATION TEAM COMPOSITION

The evaluation team consisted of six persons. Charles Johnson, MA, MPH, served as Team Leader. He is a retired USAID health-population officer with extensive experience in project design, evaluation, and management and knowledge of USAID projects, financial systems, and procedures. Peter Boddy, MD, MPH, is country director of Esperanza Bolivia (a health PVO) and a specialist in information, education, communication, training, and primary health care. He served as the clinical specialist and focused on Component One activities. Mary Church, MA, is an information systems analyst and computer specialist and concentrated on Component Two activities. Suzanne McQueen, who served as a health policy specialist and focused on Component Three activities, is a Johns Hopkins Fellow assigned to the USAID/W Bureau for Global Programs, Field Support and Research, Center for Population, Health and Nutrition, Office of Health and Nutrition, where she works on the worldwide Health Financing and Sustainability (HFS) Project, she is completing her doctorate in health policy at Johns Hopkins University. George Provenzano, PhD, served as the health care financing specialist. He is a faculty member in the Department of Pharmacy Practice and Science, University of Maryland, where he is actively engaged in research, teaching and public service in health care administration and financing, and in evaluation of pharmaceuticals and other technologies for health care. Robert Taylor, MHA, served as the hospital administration and health services management specialist. He is president of Taylor Associates International and has over 30 years experience as a manager, consultant, and educator in health services management in the United States and abroad.

C EVALUATION METHODOLOGY

The principal methodologies utilized for this evaluation include document review, interviews with relevant officials, and site visits. The planned two-day team planning meeting in Washington, D C was canceled because of heavy snow. The team spent four weeks in Egypt (January 11 - February 8, 1996) to review the extensive documentation related to the project, and conduct interviews with officials and staff of USAID, MOH, the project-related contractors (URC, Maximus, and DDM), the five hospitals involved in the CRHP, HIO, CCO, CGC, Medical Syndicate, SCU-FOM, and other knowledgeable individuals involved with the project.

Members of the team made site visits to the five cost recovery facilities: 1) Embaba Hospital in Giza, 2) 15th of May Hospital in Helwan, 3) Shark Al Medina Hospital in Alexandria, 4) Kantara Gharb Hospital in Ismailia, and 5) Kafr El Dawar Polyclinic in Beheira, to examine the extent to which cost recovery efforts were being implemented in these pilot sites. Some team members were able to visit two private hospitals in Cairo: the Cairo Kidney Center and Alsalam Hospital, to gain a better understanding of the Egyptian private sector's involvement in health care, Heliopolis Hospital to view computer prototypes prepared for CCO, and Nasr Polyclinic and the Cairo branch office of HIO to view the MIS operations and training facilities.

The team made oral presentations of its major findings, conclusions, and recommendations to the staff of USAID, the MOH, and the current contractors involved in the project. The team left a draft of its full evaluation report with USAID before departing Egypt.

Please refer to Annex 4 for a list of the documents reviewed and to Annex 5 for a list of persons contacted.

III. Findings

A GENERAL FINDINGS

The CRHP has made several notable achievements. Most importantly, there is growing, if not widespread, awareness and support for health reform within the MOH and at the highest level of government. Over the life of the project, the values of decentralized decision making have become more clearly understood, and experience has been gained in building institutional capacity through strengthening management and improving the quality of services provided. In addition, working management information systems have been developed that have potential application throughout the health system.

Despite these enormous accomplishments, progress has been uneven. The project continues to be constrained by an unintegrated design, a disjointed management structure, a burdensome array of deliverables, and fragmented technical assistance. The Evaluation Team believes that, in the time remaining, the project should refocus and redirect its energies and resources to pursue the four themes listed below.

1 System-wide Perspective

By design, the project lacks a system-wide perspective. Each project component focuses on a different aspect of the health care sector without an overall integrating purpose. Component One emphasizes institutional-level revenue generation and management strengthening, but largely ignores how these initiatives advance system-wide reform. Component Two emphasizes the development of management systems for HIO and CCO, but neglects to address the potential of these two organizations in shaping Egypt's health care system as a whole. Component Three is designed to strengthen private health insurance and providers, but without a clear idea of how these organizations relate to other elements of the health care system.

The Evaluation Team recommends that, for the remainder of the project, all project components should be directed toward a common purpose of helping Egypt prepare for system-wide health care reform and a possible transition to managed care. The objectives of the current project need not be changed.

2 Alternative Financing Methods, Managed Care, and Quality Improvement

The initiatives begun under CRHP have far-reaching implications that should be nurtured and developed. For example, "cost recovery" may have limited impact on its own, but the term has become a shorthand reference for "health system reform" often cited by MOH and GOE officials.

The introduction of cost recovery methodologies, even if not wholly successful, has focused on the need to strengthen institutional management and improve the quality of the services provided. There is a need for specific efforts to improve medical services with the establishment of Medical Quality Assurance. Furthermore, the strategic potential of HIO as a capitated insurer and managed care provider, and its potential for shaping the future of health delivery in Egypt, is not well understood. HIO is unique in Egypt as an example of a potentially large staff model HMO (similar to the Kaiser-Permanente model) with capitated financing, gatekeeping, and referral functions already in place. Finally, the potentials of CCO as a major multi-institutional provider, and its possible role in a managed care environment, have not been explored.

3 Sustainability and Capacity Building

Little time remains in the project in which to develop the Egyptian expertise needed to sustain and advance health care system reforms. Each contractor has a plan for training of counterpart staff and each technical advisor is responsible for serving as a mentor and teacher. Project management needs to assure that this important project activity is not neglected in the rush to complete activities in the limited time remaining for the project.

In addition, a forum should be created where representatives of MOH, CCO, HIO and even the private sector, academia, and other governmental ministries can meet together informally to study and discuss issues of health policy, financing, and restructuring and their relevance to Egypt. The goal should be to develop an understanding of health policy issues and reforms at national, regional, and institutional levels.

4 Redirection of Uncommitted Project Resources

The uncommitted project budget, and much of the technical assistance provided under the URC contract, should be redirected toward activities that help fulfill the purpose of system-wide health care reform. The Cost Recovery Model of Phase A, under Component One, should be redefined and simplified to assure its relevance to system-wide reform. In addition, Phase B should be redesigned to determine how the Cost Recovery Model can be adapted to a broad array of MOH, HIO, and CCO facilities. The MIS technologies and training programs, developed for HIO under Component Two, should be extended to MOH and CCO facilities. Both HIO and CCO should be offered assistance in developing their organizational capabilities and fulfilling their potential as major players in Egypt's health care system. The resources budgeted in Component Three have been largely untapped and should be used to conduct studies that enrich the dialogue on issues of health sector reform. USAID should examine the potential of developing a revolving fund, through the Credit Guarantee Corporation or similar organization, to provide working capital to public hospitals interested in reform.

Every aspect of the project needs to be focused on these four themes for successful implementation. Project management should clarify the roles and relationships of the Project Directorate, USAID, and the principal contractors, as they relate to all project components, the MOH, CCO, and HIO. The Cost Recovery Model, as defined for Phase A under Component One, should be redefined and simplified and plans for Phase B should be redirected to include HIO, CCO, and other facilities that reflect a spectrum of provider institutions. MIS technology and training approaches, developed for HIO under Component Two, should be extended to MOH and CCO facilities. Resources originally provided in Component Three, to explore managed care and other issues, should be used to enrich the dialogue on health system reform. If these steps are taken, the project has an opportunity to make an even greater contribution to Egypt's health reform effort.

Findings for each of the three project components are described in the following sections.

B COMPONENT ONE—COST RECOVERY SYSTEMS

1 Inputs, Outputs, and Purpose

The subpurpose of Component One is to develop and test cost recovery systems in Ministry of Health (MOH) facilities as a model for country-wide application. The EOPS indicators for Component One are to develop cost recovery systems in MOH facilities where private sector payments will cover the following: 100 percent of non-personnel operating, 80 percent of equipment depreciation costs, and 30 percent of building depreciation costs. These will be verified through Government of Egypt (GOE) financial reports and cost recovery (CR) facility reports.

Component One Inputs consist of technical assistance (TA), commodities, facility renovations, training, project administration, and local costs. The TA has been provided by a number of contractors, including the following: Abt Associates, Inc. and the Health Financing and Sustainability Project (HFS), the Cambridge Consulting Corporation (CCC), the Academy for Educational Development (AED), Harvard University's POLICYTECH, a subproject of the Data for Decision Making Project (DDM), and the University Research Corporation (URC). The Project Directorate (PD), staffed by local (Egyptian) consultants, provided some TA as well. All of the TA included some training. The organization and coordination of formal training events and activities has been performed principally by CCC, PD, and URC. Commodities include hospital and medical supplies, medical equipment, and computer hardware, software and peripherals. Equipment was purchased by CCC. Renovations have been supervised and coordinated by the PD and MOH.

There are three main **Component One Outputs**. These are 1) The demonstration of successful cost recovery operations. This will be verified by converting at least four MOH hospitals (which offer outpatient and inpatient services) and one MOH polyclinic (which offers only outpatient services) to cost recovery operations, 2) Technical and management capability in place within the MOH to replicate the Cost Recovery Model and reproduce it in other MOH health facilities. This will be fulfilled by the formation of the CRHP Project Directorate, staffed with MOH personnel experienced in cost recovery operations, and 3) A system established in the MOH Planning Directorate to track public sector curative and preventive health expenditures. This will be indicated by the availability of information to MOH decision makers. There is an option to convert five additional hospitals to cost recovery in Phase B, but without the extensive facility remodeling and equipment purchases which have characterized Phase A facilities.

2 Accomplishments to Date

Component One is a major element of the CRHP in terms of planned activities, budget, contractors involved, and scope. Its intent is ambitious: change the operational philosophy and procedures of the MOH. Rather than list all of the completed tasks and products to date, we will describe some notable general accomplishments that have particular relevance to the CR concept, model, process, and system.

Attitudes in the MOH towards CR in its facilities have changed significantly since the beginning of the Project. Initially, USAID/Cairo proposed a project aimed at stimulating the private health sector. MOH officials apparently were not interested in promoting private practitioners, nor were they particularly interested in CR. Rather, they saw USAID's interest in implementing the project as a means of obtaining resources for their hospitals. So, in exchange for funds to purchase medical equipment and work with MOH facilities, they agreed to permit some private sector measures. Since that beginning in 1988, officials at the MOH have gradually become interested in CR and now contemplate converting all MOH hospitals and clinics into CR facilities. This change in attitude is an important achievement of the CRHP.

While this change in attitude is impressive, it is not yet widespread in the MOH or elsewhere within the GOE, nor is understanding of CR widespread. Considerable education and promotion of the CR concept remains to be done, targeting important tertiary audiences, including the MOH, politicians, health professionals, professional societies and organizations, and the general public. This should be one of the tasks of the CRHP marketing and public relations advisors. Their concern at the moment is working with the CR facilities to develop marketing and public relations capabilities and programs in each of the five facilities. Some of their efforts should be the overall promotion of the concept and benefits of CR in a general sense. Tertiary audiences should be targeted to generate acceptance and support for the project as a whole.

As alluded to previously, a considerable amount of technical assistance relevant to Component One has been mobilized and provided to the MOH. Some of the TA has had momentary and short-term, though essential, significance and impact for the project as a whole, while other TA has had profound influence in shaping the project. The impact of much of the TA provided in earlier stages of the project is somewhat invisible and may in fact appear to have been useless, nevertheless, the previous TA laid the foundations and built up the fundamentals which should allow the project to go forward.

The PD Training Department (TD) reported that, as of December 31, 1995, training has been provided to a total of 4,188 participants from the five Phase A facilities and MOH staff. Training has been given in the areas of hospital management, hospital marketing, quality assurance, infection control, and the use of medical and dental equipment. Training has also been provided to physicians, nurses, and dentists. The TD provides administrative and logistical support to all of the training activities of the PD and CRHP (for Component One). The TD also provides TA to other PD staff for their training activities, organizes courses, and monitors and evaluates training activities. Training activities focus on skills and practical application. Training rooms have been established and equipped at each CR site, and training committees have also been organized at each facility.

The PD Marketing Department (referred to as IEC), focuses on marketing and public relations (PR). The MD/IEC has organized advertising campaigns to improve the image of CRHP facilities, promoted the increase of revenues through PR and marketing, generated community support through PR, and through TA and training, and helped to develop marketing capabilities in the hospitals. Marketing and PR departments and teams have been established and trained in each of the CR facilities. Marketing studies have been conducted in the communities surrounding the CR sites. Along with the marketing/PR teams, some physicians and nurses have been trained in marketing and PR. Receptionists have been trained in some of the facilities to greet clients as they enter the facility and direct them to the appropriate department.

The PD Management Systems Department (MSD) reports that the CR facilities have received training and TA to produce yearly business plans and to formulate financial projections. Most of the facilities are still in the initial stages of learning these skills. Thirteen priority areas were identified, and eleven modules have been developed to help introduce and establish these management systems or components at the CR sites. The eleven CR modules are

- 1 Governance (Boards of Trustees and the medical staff advisory body)
- 2 Management-Administration (policy implementation)
- 3 Management Information Systems
- 4 Medical Services
- 5 Nursing Services (including infection control)
- 6 Ancillary Patient Services
- 7 Financial Services
- 8 Support Services (housekeeping, dietary, laundry, etc)

- 9 Marketing and Public Relations
- 10 Personnel Services
- 11 Quality Assurance

A module under development is Medical Records. Some of the modules have been implemented at some of the facilities but all of the developed modules have not been implemented together at any one facility yet.

The PD Monitoring and Evaluation Department (MED) reports that it established a computerized database at each site. The MED is in the process of trying to organize monitoring and evaluation units at each of the facilities. It has conducted site visits and provided TA, conducted two operational studies and prepared reports in Arabic, produced a training manual, and established performance indicators.

The PD Biomedical Equipment Department reports that it has assessed the biomedical equipment needs at each site, hired four engineers for each site (excepting Embaba), and established standards for furnishing and equipping a small hospital, which can serve as a guide to decision makers.

The PD Management Information System (MIS) Department reports that it has prepared job descriptions for core MIS staff, introduced computers into the CR facilities and trained staff to use them, and are in the process of developing Arabic-English software. The CR hospitals are starting to record patient records (not clinical histories) on their computers.

The PD Nursing Department (ND) has made some notable accomplishments, nurse training programs, infection control, and nursing standards, to mention a few. Work has focused on improving the quality of nursing services, and maintaining good services. Most of the nurses have a relatively low level of education, and require further, on-the-job, education to be able to put new standards into practice—the ND is developing this. Nursing standards, regulations and procedures have been prepared with the assistance of a previous contractor (CCC). These are now being reviewed, put into context, simplified, and translated into Arabic. New materials are written in Arabic to avoid translation difficulties. Three infection control (IC) manuals have been prepared. Nurses in the facilities have been trained in infection control, patient services, nursing management, quality assurance (QA), and communication with physicians. The positions of QA nurse, IC nurse, and training nurse have been created at each facility.

The PD Finance Management and Accountant (FMA) has provided training in the form of conferences and workshops, and on-the-job training. The FMA has also performed the accounting for the PD, and has created a CR financial system which has been implemented at three sites (Shark El Medina, Kafr El Dawar, and May 15th). The concept of cost analysis has been introduced at two of the sites.

The CRHP has also contributed to some facility reconstruction and renovations, partly to make the MOH facilities appear more inviting to clients, partly to facilitate efficiency, and partly to enable new standards and procedures (both management and medical) to be implemented. New equipment has also been purchased, some of which replaces worn out equipment, and some of which is designed to enable the facilities to respond to new needs in their client populations. Facility renovations and the total sums spent for biomedical equipment procurement are summarized in Table 2 below.

**TABLE 2 PHASE A PILOT COST RECOVERY HEALTH CARE FACILITIES
CAIRO, FEBRUARY 1996**

No	Health Facility	Location	Community Population ^a	No of Beds	Renovation Budget (LE)	Equipment Cost (\$)
1	Shark El Madina Hospital	Alexandria, Alexandria Governorate	1,200,000	230		1,310,549
2	Kafr El Dawar Polyclinic	Kafr El Dawar City, Beheira Governorate	3,842,000	N/A ^b	1,150,000	652,885
3	El Qantara Gharb Hospital	Qantara, Ismailia Governorate	652,000	218	1,021,000	1,253,398
4	May 15th Hospital	May 15th City, Cairo Governorate	10,500,000	174 ^c	3,500,000	515,595
5	Embaba Hospital	Embaba, Cairo Giza Governorate	10,500,000	388 ^d	8,083,000	1,681,342
^a General community population, not catchment population ^b As a polyclinic, Kafr El Dawar Polyclinic does not have inpatient services and consequently, has no beds. Nevertheless, a several hundred bed addition is currently under construction. ^c Currently not operating until renovation and repair of earthquake damages are completed. ^d After the completion of renovation.						

3 Issues, Conclusions, and Recommendations

The intent of Component One of the Cost Recovery Programs for Health Project (CRHP) is important for the development of a more equitable and effective health care system in Egypt. The Project has great potential and is poised to make a significant contribution to health care in Egypt as well as providing a response to the question of health care financing and sustainability facing other countries.

The issues, conclusions and recommendations of seven areas pertaining to Component One are discussed below.

a The Cost Recovery (CR) Model

Issues and Conclusions

Defining Cost Recovery

Several factors cast doubt on the likelihood that the CR model, as defined for Phase A, can or should be widely replicated 1) the capital needed for broad-scale renovations and equipment purchases will not be easily available, and 2) a greater emphasis on the management of quality care and quality management is required if substantive improvements are to occur A streamlined, less technology-intensive approach to introducing managerial improvements is needed if the effort is to be sustained with local expertise and local resources

No articulation of the possible impact of CR on health care sector reform in Egypt has been developed There has been no evaluation of the impact of CR on access, utilization, rationalization of costs, or quality of health care services CR appears to be seen as a mechanism for reforming the facilities, which will then, automatically, reform the health care system GOE policymakers have not yet determined if managed care should be the focus for reform of the system as well as the facilities Normally, CR should be seen as part of the process to achieve managed care

The lack of clarity in the definition of cost recovery and its components, and what should characterize a cost recovery facility, has made it difficult to establish a cost recovery “model” which can be described, replicated, and accepted by the principle executors and beneficiaries of the CRHP Consequently, a cost recovery “model,” as such, has not yet been articulated To use the analogy of going on a journey, this means that the destination is not clear, so that it is difficult to decide what is needed for the journey and difficult to select the right course to get there, as well as to recognize when one arrives

The Cost Recovery Model should be simplified to focus on elements that contribute most significantly to successful cost recovery organizational independence, managerial accountability, the improvement and maintenance of the quality of medical care, and basic accounting programs that have proven their usefulness in Phase A Further development of the eleven modules should be refocussed and redirected towards specific efforts for the practical implementation of the CR model (i.e., the emphasis should be on achieving the operationality of the CR model, and not on implementing one or more of the eleven modules)

First, the concept of “model” needs clarification The term “model” implies that CR can be easily and specifically defined and delineated, packing the concepts and constituent parts into a “box” which can then be moved from one place to another Unfortunately, it is not that easy

Experience to date shows that CR and its elements are complex and profound, which require comprehending new ideas, changing attitudes and assumptions, developing new ideals, and acquiring new skills. All of this takes time to learn and apply.

CR should be viewed then as a process or system composed of a series of capacities, which may vary in implementation and application from one facility to another. Developing CR in a facility is evolutionary and not summative. In addition, different systems may be initiated in different facilities at different times, in accordance with their needs and resources, yet all of the elements are important.

As currently conceived for Phase A, the “CR model” is too complex, operationally cumbersome, and burdened with excessive expectations. The “model” is thought of as the sum of its component parts—the eleven “modules”—and the “principles of cost recovery” outlined in the PP. Such a broad definition has resulted in an excessive, and largely unsuccessful, investment of time and resources aimed at developing the cost recovery modules. Moreover, the development of each module—and its application in each pilot facility—has been dealt with separately, with little attention given to accumulating experience in module design or implementation methodology. As a result, after eight years of effort, only a few of the modules are currently ready for replication.

The eleven (or thirteen actually—eleven of thirteen modules have been developed so far) modules comprise the components of the CR Model. There is not yet a coherent vision of the CR process—a description of how the “policies, procedures and practices” contained in the eleven (or thirteen) modules or components should be put into practice by staff and interact together to produce an effective Cost Recovery Facility. Perhaps the model should be described in levels of complexity to make it more feasible to implement.

Recently, URC has introduced a tentative and simpler working definition of a Cost Recovery Model that states

A group of policies, procedures, and practices which, when implemented in an MOH facility, result in quality improvements which are sufficiently noticeable as to attract patients who are willing to share in the costs of the health care services they receive

The basic elements of the CR Model, mainly cost containment, efficient facility and financial management, an effective MIS, medical quality assurance, and service-oriented leadership and commitment, are embraced by the eleven modules. Whether or not these elements are called systems, modules, capacities or otherwise, and whether or not they are arrayed as five broad categories, or eleven/thirteen specific components, the sum and substance of the effort is to produce overall improvements in the quality of the care and services rendered at the facility.

The content of the modules is not disputed, rather the manner in which the contents are to be taught and applied

This is an interesting effort, but it needs some “tweaking ” It defines the CR model in terms of quality improvements conditioned by client perception and income generation based on fees-for-services or copayments The working definition needs to take into account several ramifications By conditioning the quality improvements on client perception, this gives too much importance to subjectivity and marketing, and seems to reduce the importance of universally recognized professional standards for patient care and medical quality assurance, unless these are clearly obvious to clients (which is not the case) What may seem good is not necessarily good for you The definition seems to ignore that segment of the population which cannot pay for its medical care, or thinks that it cannot pay

But, it is not clear that this definition is in fact advantageous As stated previously, there has been no evaluation of the long- or short-term impact of CR on the health system, particularly in regards to access, utilization, rationalization of costs, or quality of health care services It is clear that the MOH has to encounter practical solutions to the needs for capital and financial resources for the health sector Fees-for-services, copayments, and other forms of facility-based income are important parts of a bigger picture of health care finance The other parts need to be identified and evaluated

Stating that quality improvements are necessary for modest patient payments implies a reliance on client perception, which is especially susceptible to conditions requiring capital improvements, facility reconstruction and new equipment

CR appears to be seen as the solution to dysfunctional problems observed in the health care sector MOH facilities are recognized to be of poor quality, thereby reducing their effectiveness in terms of improving the health of the population This implies problems of quality, access, public service (i.e., adequate returns for public investments), etc It is assumed that if publicly-supported hospitals can increase their income, that this effort alone will be sufficient to improve the quality of the medical services provided, and that at the same time it will be possible to extend better quality services to a larger population Thus, CR is seen as a mechanism for reforming the facilities, which will then automatically reform the health system

Phase One included significant financial assistance for capital improvements, reconstruction and new equipment procurement USAID stated clearly that it did not plan to provide any more financial assistance for capital improvements, reconstruction, or to renovate equipment, and this part would be eliminated from Phase Two Nevertheless, this aspect is probably one of the most powerful incentives for hospitals to convert to cost recovery, and for the hospital staff to make the effort to convert

While not appropriate, this aspect has become strongly associated with quality health care in the Phase One facilities. In other words, many staff members feel that capital improvements and new equipment procurement are essential antecedents to the improvement of quality. And, in fact, some capital improvement may be necessary for certain conditions such as intrahospital infection control and general facility maintenance and repair. It is also probable that many MOH facilities do not have adequate equipment to provide quality primary care.

Consequently, as the model is implemented, alternative mechanisms to finance required capital improvements and equipment purchases will have to be investigated. It will be interesting to see how the CR model is implemented without capital improvements or equipment purchases in Phase Two. This is where the establishment of a rotating fund could be of great value.

If we look at the experience of other countries, however, it is probable that these assumptions are not true. Yet they require study in the Egyptian context. There appears to be agreement that reform of health care facilities is an imperative, and is a requirement to achieve better health care in general in Egypt. What is not yet clear is whether or not the need to reform the health care system is widely recognized. It is important to reform and renovate the facilities, but the organizational system within which they function, and their institutional philosophy also need to be reformed. As stated previously, fees-for-services and copayments are probably not sufficient nor appropriate to bring about the changes needed in the health care system. Eventually, managed care may be the focus for both reform of the system as well as the facilities.

In URC's 1996 Annual Implementation Plan, the first six months of the year will be devoted to "completing the definition, development, and documentation of the modules which collectively constitute the CR process or system." If this effort is to be successful, URC will need to concentrate on documenting only those capacities and implementation methodologies that are essential to the initial introduction of CR in additional facilities. Further development and refinement of the modules should be a secondary consideration and should be seen as augmenting the basic cost recovery package. Also, the modules need to be oriented in such a way as to facilitate the eventual implementation of managed care.

Some of the elements which should be part of a practical (functional and replicable) cost recovery process that together could enhance the quality, sustainability, accessibility, and affordability of health services in Egypt, appear to have been identified by the CRHP but they are not being developed and/or implemented in a coherent and balanced manner. This has weakened the process as a whole and has led to undue emphasis on certain elements.

Recommendations

- ▶ With the participation of the primary participating institutions (MOH, HIO, CCO, SCU, MS) and project advisors (USAID, URC, MAXIMUS, DDM), develop a clear definition

of cost recovery, its capacities, components, and elements which should constitute the CR system and/or process for the MOH, as well as for other institutions

- ▶ The CR model should be refocused towards creating a basis for managed care Fees-for-services is a step along the way, but should not be seen as the final goal Appropriate studies should be conducted to assess the implications of cost recovery and fees-for-services on quality of care, accessibility, and on overall health improvement of the Egyptian population
- ▶ The CR model should be redefined to be more relevant to system-wide reform and more easily adaptable to a broader array of MOH, HIO, and CCO facilities A cost recovery facility should be one where institutional capacities that support quality assurance have been established Therefore, the “model” should include capacities which facilitate and assure efficient and effective curative and preventive services The basic elements of the CR model should include cost containment, efficient facility and financial management, an effective MIS, medical quality assurance, and service-oriented leadership and commitment Quality management and managerial responsibility should be stressed
- ▶ The CR model should be seen as the development of capacities to achieve quality care and cost containment It should be comprehensive enough to achieve its ends, but flexible and variable from one facility to another A streamlined, less technology-intensive approach to introducing the CR model capacities and managerial improvements is needed if the effort is to be sustained with local expertise This implies simplification of the model This should not be taken to mean that certain elements of the model as it has been developing should be discarded, rather, that basic essentials should be identified which have to be taught and learned first, before going on to later stages

TABLE 3 THE COST RECOVERY MODEL AND THE FIVE PILLARS OF TOTAL QUALITY MANAGEMENT

The Five Pillars of Total Quality Management Cost Recovery Model	
PRODUCT	Good quality medical care Cost containment/sustainable health services
PROCESS	Quality assurance
ORGANIZATION	Financial management Management information systems Facility management
LEADERSHIP	Leadership for quality management and change
COMMITMENT	Commitment to the principles of managed care and service to the community

b. The Cost Recovery Modules

Issues and Conclusions

The modules are seen as a means of organizing the CR capacities to facilitate their dissemination and replication. The deliverable modules are as yet untested for practical application.

One important impact of the CRHP has been to affect changes in the current philosophy, organization and management of some MOH health service facilities. Through these changes, it is assumed that the quality and efficacy of their services will be improved, which will then attract sufficient numbers of persons willing to pay the costs of the services to be able to sustain them. To any organization which does not have an unlimited supply of resources, this implies a challenge to make services more cost effective. One possible solution to this challenge is the set of principles often referred to as total quality management (TQM) because it highlights some of the essential deficiencies in the Egyptian CR model. The following statement by Bill Creech in his book, "The Five Pillars of TQM," illustrates this point:

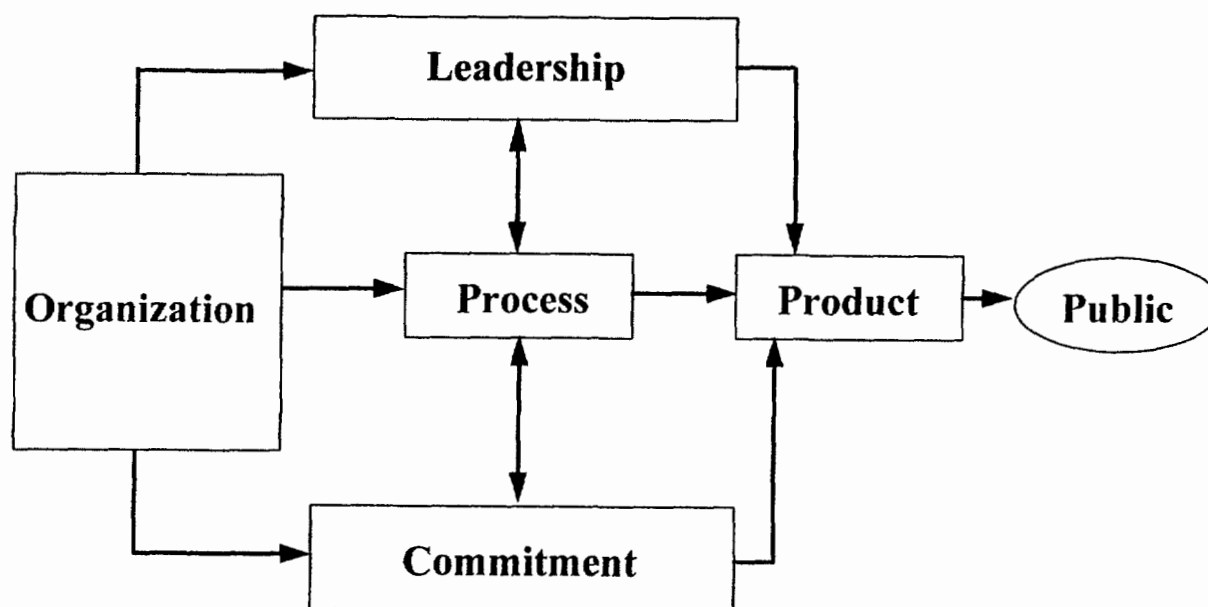
"The five pillars of total quality management provide the strong foundation upon which the system must rest. A management system is required that blends these new principles into every aspect of the organization. All these pillars are necessary for organizational greatness. One thing learned in the management business, and in working with organizations large and small, public and private, is this:

*Product is the focal point for organization purpose and achievement
Quality in the product is impossible without quality in the process
Quality in the process is impossible without the right organization
The right organization is meaningless without the proper leadership
Strong bottom-up commitment is the support pillar for all the rest
Each pillar depends on the other four and if one is weak all are '*

The CRHP is dedicating significant effort to process and organization. Little effort has been dedicated to product and leadership. Virtually no effort has been dedicated to commitment.

The separation of the three CRHP components has led to duplication of effort in some areas, and has decreased the interchange of experience and lessons learned. A greater degree of coordination would enhance efforts in all of the components. Also, the separation of the components artificially reinforces the perception that the public, parastatal, and private sectors should be separated.

Figure 1 The Five Pillars of Total Quality Management in Relation to the Public



Recommendations

- ▶ Review work that has been done to date, identify the elements of the CR process which are sufficiently developed, to be taught and implemented, and identify those elements that require further development. Document the former, and design training and implementation programs to initiate and support their application at CR facilities. Finish development of the latter.
- ▶ There is a need to focus on the essentials and foster less TA-dependent methods. Systems and training methodologies need to be documented. The five pillars of TQM are essential elements for CR. There needs to be more emphasis on developing leadership and commitment in the CR facilities.
- ▶ The complete CR model needs to be tested systematically. Responsibility for testing of the CR model should be divided into two parts: 1) general organization and management (GOM), management administrative systems (MAS), financial management system (FMS), MIS, and MQA, and technical assistance under the direction of URC-MAXIMUS/MOH-HIO-CCO, and 2) facility renovation and physical improvement, and equipment procurement, reconditioning and repair, under the direction of the MOH and the selected facility.

c Technical Assistance

Issues and Conclusions

The realization of technical assistance activities to fulfill the objectives of Component One has been fragmented and undirected. While Egyptian professionals, mainly from the PD, have performed much of the training, it is not clear whether or not they have garnered sufficient expertise through the technical assistance to date to be able to design, develop, pretest, and present the training programs necessary to implement the CR process. The implementation of the CR model and process requires a great deal of training, therefore, all of the training must be as effective, concise, goal directed, and practical as possible. To facilitate attaining these ends, the training should take into account adult training techniques. In addition, the trainers must comprehend clearly how their training will contribute to the establishment of the CR reforms.

All of the elements of a CR model (as yet undefined) have not been implemented at one Phase A institution. Implementation has been done institution-by-institution. All five Phase A institutions have experienced different and incomplete implementation of CR elements.

The importance of establishing capable management/administrative systems, an efficient financial management system, and an effective management information system (MIS) seems to be recognized in principle but does not seem to be understood by the main parties involved in the CRHP. Activities related to all of these areas have been initiated at all of the Phase A CR facilities, with the exception of Embaba Hospital. On the other hand, the establishment of a proficient medical/clinical quality assurance (MQA) program does not seem to have received the same emphasis, nor is it receiving a similar level of effort as the other systems. Thus far, specific limited MQA activities have only been initiated at one CR facility. Nevertheless, other QA activities have been initiated at the other facilities, and need to be consolidated, but they are not enough. (See following section for a more extensive discussion of this point.)

Equipment purchases do not correspond to identified needs and strategies of the facilities, rather, physicians at the facilities prepare "wish" lists of equipment they want. There were only enough funds within the CRHP budget to purchase equipment for the five Phase A facilities. This does not take into account the equipment needs of new facilities nor the need to renew equipment.

There has been little cross fertilization among pilot facilities, and virtually no progressive learning. The Component focus of the CRHP has led to duplication of effort in some areas, and has decreased the interchange of experience and lessons learned (e.g., the HIO MIS system). A greater degree of coordination would enhance efforts in all of the components. Some of the deliverables accepted as fulfillment of contractual agreements for the CRHP are not practical, and though they may fulfill contractual terms individually, do not integrate well with other elements of the project.

Recommendations

- ▶ Develop the capacity of Egyptians to give better technical assistance for the development of implementation strategies, training, monitoring of conversion and project progress, motivational supervision, etc. The resident advisors of the U S -based contractors for the CRHP, who collectively bring together a great deal of expertise and knowledge, should more actively cultivate and prepare Egyptian counterparts to do what the foreign advisors now do. They should especially strive to bring along counterparts from the MOH and PD, and preferably, more than one counterpart. Hopefully, Egyptians will acquire new knowledge and skills, new attitudes and perhaps more importantly, more effective ways of working. The contractors and the PD leadership should seek out counterparts who are capable of doing their work and interested in acquiring new skills.
- ▶ MQA needs to be implemented more vigorously. See Section 3 e below for more details.
- ▶ Equipment purchases should be based on strategic business and utilization plans. The strategic business plan should indicate the institutional benefit to be obtained from the equipment requested and how the equipment will contribute to the CR process. The implementation plan should indicate why, how, when, where, and by whom the equipment will be used.
- ▶ Investigate the possibility of establishing a revolving fund for equipment purchases that can be used by any facility which desires to establish the CR process, demonstrates its willingness to do so by formulating strategic and operational business and implementation plans, has a functioning Board of Trustees, has reorganized its medical staff, and is initiating management systems. The Evaluation Team recognizes the problems associated with establishing a revolving fund for public facilities.
- ▶ In the future, there should be a more conscientious evaluation of deliverables, and assessment of the real or potential contribution to the CRHP, before they are accepted.

d Conversion of Health Care Facilities

Issues and Conclusions

CR conversion has been initiated in the five Phase A health facilities (see Table 2). The conversion process has not been the same at each of the facilities. Consequently, it is difficult to compare the experiences and results. None of the Phase A facilities have been fully “converted.” The initial conversion strategy called for the formulation of five plans: 1) a business plan, 2) an architecture and engineering plan, 3) an equipment plan, 4) a training plan, and 5) a technical

assistance plan. Cost recovery conversion was focused on four aspects: 1) quality, 2) sustainability, 3) affordability, and 4) accessibility.

The business plans prepared with project assistance describe the conversion strategies for implementing the four aspects of cost recovery. The development of quality includes facility renovation, staff recruitment and training, installation of management systems, and the establishment of a Board of Trustees. Sustainability is promoted through training, establishing a staff recruitment and retention policy, implementation of management systems, new legislation, and community support led by the Board of Trustees. Accessibility is to be “opened” and linked to ability to pay, hours of attention are to be expanded, and marketing is to inform the community of new hours. Affordability is to be calculated “in accordance with hospital industry standards to offset the costs of the updated quality of care provided.” Prices are to be fixed by the Board of Trustees.

The conversion process described here is somewhat vague and imprecise. This appears to be a reflection of the imprecise definition of the CR concept and model. The parts of the conversion process seem to have been identified and prepared for implementation, but the process of that implementation appears to be somewhat unclear. As with the CR model, the conversion process needs to be more specifically defined, simplified and practical.

As mentioned previously, none of the Phase A facilities have been fully “converted” yet, and this process should be finished. The personnel at three of the facilities (Shark El Madina, Kafr El Dawar, and May 15th) seemed to be very enthusiastic and positive toward the conversion process, and have initiated several of the components (different components at each one).

The directors at Embaba seemed to be very enthusiastic also, but wanted to wait until the renovation construction is finished before initiating other changes. Unfortunately, it does not look like the construction will be finished much before the end of the project. Therefore, Embaba should be encouraged to implement as much as possible forthwith.

El Kantara Gharb Hospital should be studied. It is the only hospital visited by the Evaluation Team that did not seem to be advancing with CR. Initially, it received the greatest inputs and responded well. Then apparently, about a year ago, most of the staff quit, and they have not yet been replaced. When we visited the facility, there was a notable lack of patients and activity. CRHP should investigate whether or not this facility should continue in the conversion process, or whether it might be better not to expend more resources on it and instead redirect those resources to more encouraging facilities.

The following components should be part of the CR conversion process. In some cases, new legislation and/or MOH policies may be necessary prerequisites.

- 1) **Administrative autonomy** of the facility, which is achieved through a decree issued by the MOH. This is important to allow for managerial flexibility, initiative and responsibility.

The MOH could also consider transferring ownership of some of its facilities to Governorates, municipalities, or communities, along with the responsibility for financially sustaining and supervising the facility, while upholding operating standards (based on CR/managed care precepts) established by the MOH. The MOH could offer access to financing, training and technical assistance, as well as assuming a normative and regulating role. Another possibility is to lease some facilities to other governmental entities and/or private groups, such as industrial concerns, syndicates, physician group practices, HMOs, etc., and impose the same conditions as described previously.

Governance of the CR facility should derive from a Board of Trustees (BOT). The BOT should marshal and coordinate community support, establish policies, assist in determining strategies, provide consultation for “knotty” decisions, provide oversight and activate accountability.

- 2) **Administrative incentives** for those facilities that initiate and implement CR. These could include exemption from certain administrative requirements, access to financing (grants and/or loans), staff training and scholarships, participation in special projects, job stability for staff, etc.
- 3) **Systematic training**. All staff need to be trained to develop “cost recovery” and quality care skills.
- 4) **Personnel policies** for recruitment, retention, and incentives based on performance and contribution to quality care and cost containment. The fulfillment of prerequisites for employment based on quality care and cost recovery skills, would help to recruit more qualified staff, as well as enhance the credibility of the staff.

Personnel incentives need to be delineated and expressed. These incentives should include an increased level of salary (which should be performance based, i.e., the more one works, the more pay one receives), hierarchical promotions, individual training and educational opportunities, and the fulfillment of ideals of doing good work and performing community service.

- 5) The establishment of **management systems**. The basic management systems include 1) the management of quality care (medical quality assurance), 2) financial management, 3) MIS, and 4) facility management. All of these management systems need to be established, but they could be initiated and implemented in accord with facility needs and

at facility demand, which would also enhance the learning process. Hospital administrative personnel should clearly understand what is expected of a CR facility, what its goals are, how it should function, and what management systems should be established. They should then formulate a plan for development of the facility, based on facility strategic and operational plans.

- 6) **Facility renovation** The facilities need some renovation, repair, and rebuilding. In some cases, this need is relatively minor, in other cases it is major. Facilities should prepare renovation plans which justify proposed renovations in terms of their contribution to quality care and CR. The most essential elements of their plans should be funded initially, and further renovations should be made contingent on institutional performance in implementing the CR conversion process.

Most of the funds for renovation should come from extra-project sources, such as the MOH, the Social Investment Fund, and others. The possibility of establishing a rotating loan fund for this purpose should be investigated. CRHP should investigate establishing a special, limited fund from project monies for establishing minimal levels of cleanliness and hygiene in the conversion facilities.

- 7) **Equipment purchases** Some medical equipment is necessary for the provision of quality care. Following the suggestions in number six above, the MOH should investigate alternative funding and procurement sources for equipment purchase and reconditioning.

The CR model, and the CR conversion process, focus on establishing modern, efficient and effective management practices to ensure quality health care and optimal use of resources. These practices are of equal importance to other GOE health care facilities. Many private sector hospitals are already applying these principles. HIO, CCO, medical school, and other GOE health facilities would benefit by implementing these principles as well.

Recommendations

- ▶ Facility conversion to CR status should be achieved through administrative changes, incentives and by initiating the CR process. This could include formulating strategic and operational business and implementation plans, establishing a functioning Board of Trustees, reorganizing its medical staff, and initiating management and QA systems. Conversion should follow the development and demonstration of leadership and commitment. The conversion components described in the previous section should be implemented.

- ▶ All of the elements of the CR model and the conversion process, as described in this report, should be applied at the Phase A facilities, with the possible exception of El Kantara Gharb Hospital. The latter should be studied to determine whether or not it will be worth the effort to resuscitate it.
- ▶ The CR process should be initiated simultaneously at Phase B facilities. The minimum requirements for facilities selected for Phase B should be **local need**, and the following
- ▶ The staff of the facility should want to participate in the CR program
- ▶ The staff should demonstrate commitment to CR. Cost containment and efficient financial management, a competent MIS, medical quality assurance, and effective management
- ▶ The MOH and corresponding Governorate, as well as the facility itself, should accept full responsibility for funding, initiating and accomplishing all of the necessary renovations and physical improvements, and equipment procurement, to enable the facility to adequately function within the CR process/program
- ▶ Be an HIO facility or contract facility
- ▶ Establish a revolving fund for equipment purchases

The CRHP should investigate the possibilities of establishing a revolving fund to finance capital improvements, facility renovations, and equipment repairs, then purchases could serve as a considerable incentive for CR implementation as well as providing the means to achieve necessary maintenance and repairs. The fund could be established by the MOH or the GOE. Perhaps some or all of the unused funding set aside for private sector loans as part of the third component could be used. This way, MOH, HIO, CCO or other community or parastatal health facilities could get loans without presenting collateral. Community support could also be part of the sustainability mix. Loans could be given for partial payment of intended improvements, with the balance to be financed by other funding sources, such as the beneficiary community, government social improvement funds (e.g., SIF), third-party grants, etc. Loans could also be conditioned on the following requirements: 1) the implementation of CR measures, 2) a certain percentage of facility staff being trained in the CR Model, or 3) the preparation of a CR development plan. Loans could be relatively small in terms of total request, such that subsequent loans would depend on the repayment of initial amounts.

e Medical Quality Assurance

Issues and Conclusions

The operational description of quality, as found in the Business Plans, include facility renovation, staff recruitment and training, installation of management systems, and the establishment of a Board of Trustees. There is no specific mention of medical or clinical quality, or MQA. The term “management systems” probably includes QA, medical services and nursing services as three of the eleven modules developed to train staff to put into practice the CR model.

People go to health care facilities for medical/clinical services. The product of health care facilities is medical/clinical services. Ethically, the CRHP should result in a real and direct improvement of those services. There seems to be a conceptual confusion concerning “product” and “process.” Everything a CR health facility does should focus on producing good quality medical/clinical care at the lowest cost to the consumer and the facility. All of the other management systems, renovations, and reequipping are part of the process which contributes to the delivery of the product—medical/clinical care. Some of the staff in the Phase A CR facilities seem to have confused good management with good medical care, and this is misleading.

A focus on the product (medical/clinical care) should be emphasized, and the real and perceived improvement of health care should be seen as the principal goal.

The management of quality should be an essential concern of health care facilities. The following statement indicates the purpose of quality management:

“ to establish a system that measures and manages patient care in a way that provides the best care for all patients. It identifies opportunities for improvement as well as system problems that require resolution. It ultimately fulfills a societal commitment of the health professions to the public.”¹²

¹Longo, DR, & Avant, DW. Managing Quality. In Taylor, RJ, & Taylor, SB, Editors. THE AUPHA MANUAL OF HEALTH SERVICES MANAGEMENT. AUPHA, Aspen Publishers, Inc., Gaithersburg, Maryland, 1994, pgs 45-46.

A good system for the management of quality is vital for the survival of a health care facility

The CR model addresses the product through improving the performance of nurses, infection control, renovating and equipping facilities, improving management and QA. The establishment of a proficient medical quality assurance (MQA) program does not seem to have received the same emphasis, nor the same level of importance, nor is it receiving a similar level of effort as the other elements. So far, it has been initiated at only one facility. Nevertheless, other activities have been initiated at the other facilities, and need to be consolidated. But, more effort needs to be focused on the services themselves through MQA.

One of the major problems of medical/clinical care is the relatively deficient education of nurses and physicians. This project cannot address that important issue directly, though there are some practical, low-cost measures that can be taken. Perhaps the most effective measure that can be implemented for the production of good quality medical/clinical care is MQA. MQA is more important, and more cost-effective, than clinical updates, and the former, not the latter should be the focus of CRHP.

Fortunately, the CRHP already includes MQA. The QA activities initiated at May 15th Hospital by the Quality Assurance Project were excellent, and this is probably one of the best and most effective components of the CRHP. Unfortunately at the time of the evaluation, MQA was not being emphasized at all. Specific project MQA activities at the only facility where they had been implemented (and this only partially) had been suspended. The MQA advisor (a very capable QA professional) had been "promoted" to be one of two sub-directors of the URC project and was given administrative duties, which unfortunately significantly reduced her time for MQA. This was not an encouraging development. It is unfortunate that MQA was not immediately introduced at all of the CR facilities. It should be one of the first systems introduced for CR conversion.

One of the elements of MQA is the formulation of standards of clinical practice, based on diagnostic and treatment guidelines and/or protocols. These standards and guidelines are essential for establishing minimum expectations for quality care, providing a basis for monitoring and evaluating clinical care and procedures, identifying opportunities for cost containment, and facilitating financial projections, budgeting and cost analysis. Clinical standards and guidelines serve as a basis for educating and training (or retraining) health care personnel, as they have to be trained to fulfill the standards and put the guidelines into practice.

Once the standards and guidelines are established, they can be used to evaluate the proficiency of prospective employees. Medical and nursing schools can be encouraged to incorporate them into their curricula. Graduates who are familiar with the standards and guidelines will be

more employable The fulfillment of standards can also be used by facility management as part of the evaluation of staff performance

Recommendations

- ▶ Emphasize a focus on quality and the production of quality care Increase the level of effort dedicated to MQA, so that it becomes equivalent to the other CR elements, and it is perceived as being of equal importance in the CR model Reimplement the MQA program at May 15th Hospital, and immediately initiate it at the other Phase A CR facilities Document it for replication at Phase B facilities As stated previously, MQA is more important for CR and managed care than are clinical updates Therefore, efforts should give priority to MQA over updates, though if resources are available, it would be good to organize the latter Disseminate information about MQA and offer to train staff from other facilities in how to apply it As stated, the QA program is very good, and other personnel could be charged with paying for the costs of the training
- ▶ The MOH should be stimulated to assess the standards and guidelines produced by the CRHP, to establish minimum standards for hospitals, and to develop diagnostic and treatment standards, guidelines, and protocols for the most common health problems The professional societies should be invited to participate in the evaluation of the standards, guidelines and protocols (establishing time limits and deadlines for the completion of recommendations)
- ▶ Precedents for guidelines and standards have been produced in other projects, and these could be adapted to the CRHP, as well as serving as examples for the development of others For example, see the National Standards of Practice for Family Planning Clinical Services Delivery, developed by the Systems Development Project for the MOH Project Hope is working with the MOH to develop national clinical standards for nurses, and this experience has been incorporated in the CRHP, as Project Hope has become a subcontractor of CRHP Also see the guidelines developed at May 15th Hospital

***f* Sustainability**

Issues and Conclusions

As the project enters its final years, sustainability of CR initiatives will become an increasingly significant imperative One legacy of the project will be the development of the CR model, and initiation of the CR process in MOH facilities Another will be the stimulation of the health care finance debate and the realization of studies and assessments of possibilities, ramifications and alternatives The renovations and reforms initiated by the CRHP signify important and potentially vitalizing changes in health facility management and the production of quality care

Thus, sustainability is an important issue for the MOH and CRHP, especially with regard to the support and replication of CR operations. Training is one of the principle mechanisms for promulgating and establishing CR and managed care. Institutionalization of CR is reflected in the capacity to provide introductory and continuing training and motivational supervision for the CR elements.

A great deal of training is required to effectively implant the changes of the CR model and conversion process, especially at the beginning. A number of new skills and techniques need to be learned. It is important that the training be systematic, coordinated and focused. As the process progresses, a CR facility should develop its own training capacity, and should be guided to the point of being able to indoctrinate and train its own personnel. Therefore, the need for training by external trainers will gradually decrease (if the trainers train well). Trainers should also use a variety of training strategies and techniques: classes, seminars, workshops, guided self-study, supervised practice, on-the-job training, etc.

The continued survival and success of any organization depends on its ability to train and retrain its members. This also determines the organization's ability to be flexible and modify its response to new market trends and needs. An organization's vitality and adaptability depends on its ability to learn, and this is conditioned by its training capacity.

Educational and training programs, to teach the knowledge and skills of the management systems included in the CR model and conversion process, could be taught at universities and institutes. Educational institutions could offer degree programs, courses, and seminars, both undergraduate and graduate. This would provide staff a greater opportunity to study management and quality health care themes. It would also give non-staff members the chance to learn the same skills, which could help to prepare them for future employment in CR health care facilities. The possibility of obtaining a university degree or certificate, especially an advanced degree, can be a powerful incentive to invest personal time and effort in professional development. The establishment of educational and training programs in CR themes would also give them greater credibility, and extend their influence beyond the MOH.

Universities and institutes could be encouraged to design and implement training and educational programs at virtually no cost to the CRHP. One prominent Cairo university is a subcontractor to URC, with the responsibility of preparing and conducting training activities. The university could be prompted to present the same activities on its own, and receive payment from participants, much like their other educational offerings. Other universities could be stimulated to do the same. CRHP technical advisors could assist in the dissemination of CR knowledge and skills. Perhaps they could offer limited TA to orient universities and institutes which show an interest in organizing and presenting CR-related workshops, seminars, and courses.

Recommendations

- ▶ A dynamic training capacity should be established at each site, along with the institutionalization of CR training (i.e., the establishment of a permanent and effective capacity) at CR facilities, along with the formulation of permanent and regular events and activities. If the MOH is indeed serious about replicating the CR model at all of its 260 facilities nationally, it is also necessary to institutionalize CR education/training at national and regional (governorate) levels, so that these levels can provide more appropriate support to the health care facilities.
- ▶ To better prepare new health care personnel to work in the MOH CR facilities, to train nongovernmental health care personnel, and to institutionalize CR management in the health care professions, the CRHP should assist (through technical advice and encouragement) universities and institutes to establish permanent CR education and training within their educational programs. The CRHP should also advocate and promote the development of university-level CR management undergraduate and graduate degree programs, including seminars and courses for lay managers, including physician and nurse managers.

g Rationalization of the Use of Health Care Resources

Issues and Conclusions

Staff at many of the health facilities visited by the Evaluation Team commented on the competition they face from other MOH, HIO, CCO, medical school, and private health care facilities in the immediate neighborhood of the Phase A facilities. It appears that little consideration was given to the rational and justified distribution of health care resources. Placement of health facilities in Egypt, as in many countries, is subject to political considerations as well as health care resource considerations. It is hoped that the placement of Phase B facilities will be based more on health care needs.

The Evaluation Team also heard about the widespread underutilization and the apparent large surplus of hospital beds, both in the CR facilities and in neighboring institutions. We observed one facility (El Kantara Gharb) where only ten beds were utilized, representing only 20 percent capacity. Policies needed to make hard decisions concerning the maintenance of surplus beds should be evaluated or established.

Many people commented to the Evaluation Team on the low quality of services offered by many physicians, and the obligation of the MOH hospitals to employ physicians, even though their performance may be inadequate and inappropriate. The only way to address this problem is by

introducing QA including quality standards and guidelines, along with continual quality monitoring Job stability should be based on accredited credentials and job performance

Recommendations

- ▶ The CRHP should encourage the MOH to review policies concerning the employment of physicians or other health professionals regardless of performance It should review the distribution of health care facilities and hospital beds, make decisions concerning conversion dependent on real local needs, and reduce the number of facilities it has to support

C. COMPONENT TWO—IMPROVING MANAGEMENT PRACTICES OF HIO AND CCO

1 Inputs, Outputs, and Purpose

The subpurpose of Component Two, as stated in the 1993 PP Supplement, is to improve the efficiency, utilization, and management of existing cost recovery organizations

When the project began in 1988, two public sector health care organizations appeared to recover most of their recurrent costs the Health Insurance Organization (HIO) and the Curative Care Organization (CCO) These two organizations are the major GOE participants in Component Two CRHP activities focus on improving management systems to promote efficiency and contain costs by providing each organization with a Management Information System (MIS)

Inputs total \$36,856,204 for 1) technical assistance, 2) commodities, primarily hardware and software, 3) funds for renovation, 4) training, and 5) local costs for both HIO and CCO The technical assistance (TA) has been provided in two stages to each organization separately The first stage was to work with each organization to define its information system needs and to stimulate interest in new management techniques The output of the first stage was a Request for Proposal (RFP), which provided the basis for the second stage, a contract for implementation of an MIS

In the case of HIO, Cambridge Consulting Corporation (CCC) provided TA for preparation of the RFP The contract for HIO's implementation was awarded to Maximus and its subcontractors, Chemonix and Arab Soft In the case of CCO, Birch and Davis International (BDI) and its subcontractor Data Processing Services (DPS) prepared the RFP The contract for CCO's implementation had not been awarded when the evaluation team left Egypt, but announcement of the award was expected quite soon

The financial inputs budgeted in the original Project Paper (PP) were \$10 million This amount was increased in the project supplement to \$34.9 million Written rationale for this increase was not available Mission institutional memory recalls that by the time the supplement was written, it had become clear that the original sum budgeted was inadequate for the activities planned

TABLE 4 SUMMARY OF INPUTS FOR COMPONENT TWO

SUMMARY OF INPUTS COMPONENT TWO				
	CONTRACT BEGINS	CONTRACT ENDS	AMOUNT COMMITTED	AMOUNT DISBURSED
HIO MIS				
a CCC	10/31/89	7/31/94	2,568,724	2,568,724
b Maximus	1/21/93	1/20/98	21,084,122	10,449,178
CCO MIS				
a BDI	8/5/91	2/28/95	2,205,610	2,059,985

Two outputs are specified in the Project Paper Supplement's (PPS) logical framework

1 MIS installed and utilized Indicator MIS installed at HIO and CCO, with information generated used for decision making

Evaluation of the status of this indicator depends on one's interpretation of the phrase "used for decision making" Both institutions have had automated support added to some of their operations For example, both are already using the systems to record clerical transactions in patient management, and information from the MIS is used daily in this context These would not commonly be called "management" decisions, however The second output indicator quantifies the effect to be expected from management decisions enhanced with the MIS

2 Cost containment and system efficiency leading to expanded coverage Indicators 25% increase in utilization of HIO and CCO facilities

The indicators for this output are problematic First, the statistic to measure utilization is not defined Second, increased system efficiency may lead to lower apparent utilization in the short term For example, increased efficiency within a single hospital may lead to shorter stays in the hospital, and this produces a decline in utilization as measured by occupancy rates From a system-wide perspective, particularly when facilities are generally underutilized, as they are in Egypt, increased utilization can be achieved only through a decrease in capacity Decreasing the number of beds and hospitals requires an institutional commitment that an MIS may support, but cannot create It is unlikely that this output indicator will be achieved by the end of project

The logical framework for the Maximus contract, included in each functional design document, states the goal in a way that more realistically reflects achievements within a manager's sphere of influence The goal is to improve HIO's ability to raise treatment quality and contain costs The indicators are 1) lower costs for drugs per patient, 2) shorter lengths of stay in hospitals, 3) reduced number of patient visits per episode of illness, 4) lower cost of treatment per patient, and 5) higher proportion of favorable outcomes per patient

The major underlying assumption is that HIO adopts policies and procedures to maximize use of the system, this assumption is likely to be met only if HIO managers receive and use training in financial and quality management

2 Accomplishments to Date

a HIO

Shortly after implementation of the HIO MIS began, parliamentary decision trebled HIO's beneficiary population to some 20 million. Additional costs associated with including a larger population, and some RFP underestimates of the work required to prepare sites to house the computing equipment, necessitated revisions in the contract. HIO, USAID, and Maximus renegotiated the contract, which was signed in September of 1995.

The contract calls for design, implementation, and installation of software modules at polyclinics, hospitals, and HIO branch and central offices. (This table appears in the contract. In some cases, these modules really comprise several functionally related modules.)

Location					
MODULE	HQ	Branch	Polyclinic	Hospital	Store
Beneficiary reg /Elig Check	X	X	X		
Drug Control and Inventory	X	X	X	X	X
Patient Records			X	X	
Cost Accounting	X	X	X	X	
Medical Quality Assurance			X	X	
Admission/Discharge/Transfer				X	
Contracted Pharmacy		X			
Periodical Medical Exams		X			
Management Reporting	X	X			
Computer Operators	X	X	X	X	
Contract Providers		X			
Aggregation		X*			

* For installation only at branch facilities which do not receive automation at the polyclinic and hospital levels

Note: Most modules contribute management data. Modules contributing management data only at the headquarters and branch levels are not noted here as headquarters or branch modules.

Each set of modules goes through a beta test process. When the beta test is completed to everyone's satisfaction, HIO and USAID formally approve the modules, which are then installed.

in similar facilities. HIO and USAID have approved the implementation of the beneficiary registration, cost accounting, and outpatient modules, and roll out of these modules has begun.

Approval of inpatient modules can be expected by the end of March 1996, when roll out will begin. The remaining modules are well into the design and implementation stages.

The software is implemented with an Oracle server in a UNIX operating system, on an Intel Pentium platform. The contractor is responsible for procuring the hardware, preparing the installation site, and installing the hardware. The system architecture includes telecommunications support. Data, including patient records, can be transmitted between facilities and HIO offices on demand.

The contract addresses sustainability by requiring that software maintenance and user training be institutionalized in HIO. Currently, HIO staff conduct trainings and have designed and built ancillary software modules, such as nonpharmaceutical medical supplies and laboratory inventory applications. A documentation protocol also promotes sustainability. Each module is accompanied by a series of written materials that document the design, implementation, operation, and training aspects of the software modules. Supporting documentation for each module includes Functional Design, Detailed Design, Test Plan, System Document, User Manual (English and Arabic), and Training Materials (English and Arabic).

USAID asked that the team look at the sustainability of the MIS in terms of HIO's ability to provide the financial and human resources to continue using the MIS. A detailed response is included in Annex 6. The short answer is that it is simply a matter of money to maintain the equipment and to attract and retain information systems specialists. If the system is useful, the money can probably be found, if it's not useful, then the money may not be available.

Accomplishments have been made in HIO's information technology efforts. The system is well designed. It employs a modular, open-ended architecture, which means that it is fairly easy to adapt portions of the system to new settings, and to add a new functionality. Most of the basic modules have been designed and implemented, current efforts are focussed on a rapid deployment of the technology. By the end of March 1996, the HIO/Maximus information system will be installed in 13 polyclinics and beta test of the hospital system will be completed.

By the end of September 1996, the system will be operating in 44 polyclinics and seven hospitals in Cairo and Alexandria, and by mid-1997, in 58 polyclinics and 15 hospitals. There is every reason to believe that this ambitious schedule will be met. When the installation process is completed, half of the facilities and branches will be automated, as specified in the contract.

Technology deployment has been accompanied by strengthening the institutional capacity of HIO to train staff in the operation of the MIS and in maintenance and extension of the software.

b CCO

CRHP's work with CCO has focused on two areas support of nurses' training in clinical standards and protocols, and preparation of the RFP for the MIS

CCO reports that the training course, which was designed by CCO and uses nurses as instructors, has graduated some 160 nurses Course materials include videotapes, particularly useful for teaching procedures, as well as written materials Egypt has no nationally-mandated set of medical standards and protocols, so CCO reports having translated relevant material from 89 international sources into Arabic, to provide a reference set of standards

During preparation of the RFP for the MIS, automated prototypes were developed to provide working examples of the way a computer might enhance facility operations The prototypes are independent, standalone, software modules that support functions like admission/discharge/transfer, pharmacy stores, outpatient registration for contracted patients, bookkeeping, cost accounting, and billing The prototypes were installed at three CCO hospitals

When the prototypes were installed, a "shadow group" was trained at each hospital to provide technical support in information system operations The prototypes, and the "shadow groups" have succeeded in stimulating enthusiasm for the MIS among the clerical staff who use the systems Even though the RFP has been completed, the prototypes are still used to support some clerical transactions in daily operations

Development of the RFP also included an audit and redesign of all of the forms used in the hospital, in order to ensure that necessary data elements are present and to facilitate data entry

Completion of this important task was supported by the prototypes, which simulated a working environment in which new forms could be tested

3 Major Issues Findings, Conclusions, and Recommendations

Five key issues emerged from Component Two In summary, they are the following

a Managed Care

CRHP documents emphasize quality improvement and cost containment To date, little use has been made of contemporary, quantitative management tools to make decisions regarding quality and cost Managed care includes a variety of techniques that address these concerns In the time that remains to CRHP, managed care tools should be introduced and used in participating institutions

b *The MIS Information technology, financial management and quality assurance*

To date CRHP has focussed attention on the information technology that supports the MIS. The project should now turn to developing the management skills required to use the technology in making decisions.

c *HIO's changing and multi-faceted role in the health care sector*

HIO's role in public sector health service has increased in importance since the beginning of CRHP, and the project has begun to provide additional support for planning and policy. These new initiatives should continue and dialogue with other key players in public sector health care should be encouraged.

d *MOH MIS*

MOH facilities in CRHP have no MIS available to them. The HIO MIS would satisfy the information processing requirements at the MOH facilities. The HIO system is the most complete, robust, and cost-effective solution available to CRHP right now. The HIO MIS should be adapted for use at MOH facilities.

e *CCO MIS*

CCO is unlikely to be able to take advantage of the MIS proposed in the RFP, primarily because necessary enabling adjustments in managerial perspective and infrastructure have not occurred. The procurement for this MIS should be terminated. The HIO MIS should be adapted for use at CCO facilities.

The recommendations for adaptation of the HIO MIS for use at two different institutions are based on the needs of the institutions, and the options available to CRHP to satisfy those needs.

The recommendations are based on the requirements, not on the desire for a uniform system. However, adopting a single system does offer advantages over multiple systems: it saves costs, both for USAID, and potentially for the GOE, and it promotes collaboration among the participating organizations.

It was recognized that these recommendations might create contractual difficulties, and the Mission was consulted regarding guidelines that should be used to frame workable recommendations. The team realizes that some recommendations may be difficult to implement, but not impossible. This section includes a more comprehensive discussion of the five issues.

a *Managed Care*

CRHP's goal, as revised in the 1993 Project Paper Supplement, is "to enhance the quality, sustainability, accessibility, and affordability of health services for the Egyptian people." The four elements of the goal balance each other. Quality is key, and, for example, cost containment measures that enhance affordability must be checked against quality standards to ensure that quality is not diminished. The evaluation team has used the term managed care to refer to techniques that help maintain the desired balance of quality, sustainability, accessibility, and affordability.

Managed care techniques are used in situations where personal health care is provided to a defined population in return for a fixed and predetermined reimbursement. Egypt, which attempts to provide "almost free health care to all from tax-based sources" (1993 Project Paper Supplement) is in exactly this situation. Many countries have similar mandates that rely on fixed tax revenues to finance universal health care, and managed care techniques are frequently used in these countries, particularly to balance cost and quality. In these settings, the decision to use managed care techniques is not a policy decision; policy, the tax-based financing of health care, has already been set. Managed care simply offers options for implementing the policy.

Managed care techniques are really quite neutral. They may be used with different service delivery strategies and adapted to serve quite different ends. For example, in the United States utilization review is used to control costs associated with over-treatment and inappropriate use of resources, in some areas of the former Soviet Union, utilization review is used to improve quality by focussing on providers who under-treat. In both settings the same analytic procedures and tools are used. (Utilization review compares a provider's diagnosis and treatment habits with established standards.)

In the remaining months of the project, introduction and use of managed care techniques are important for two main reasons:

- i** The issues surrounding a workable definition of the Cost Recovery Model are documented in Section 3 (Findings, Conclusions and Recommendations) of Component One. CRHP has demonstrated that user fees can increase revenue in public sector facilities. The rationale is that the increased revenue will ultimately enhance "quality, sustainability, accessibility, and affordability of health services for the Egyptian people." The project clearly has a responsibility to assist participating institutions in directing their increased income towards the improvement of long term health outcomes. Managed care offers techniques, validated by international experience, for balancing the sometimes competing demands of "quality, sustainability, accessibility, and affordability."

- ii Neither MOH nor HIO facilities have been able to provide mandated quality service within the budget allotted. While revenues from the private sector, such as the user fees that have been introduced under CRHP, can increase available funds, it is not at all clear that these revenues will offset the operating deficit. Managed care offers techniques for understanding the relationships between quality and cost so that resources and revenues can be used even more effectively.

b The MIS Information Technology, Financial Management and Quality Assurance

CRHP emphasizes the importance of an MIS to support the delivery of high quality and cost effective health care. Activities have focused on information technology: computer hardware and software. Automation can ease the clerical burdens of operating a facility, but information technology by itself is not an MIS. To improve the delivery of health care, persons skilled in financial management and quality assurance must use the information. While improvements in financial management and quality are often mentioned in CRHP documentation, the resources directed to these issues are much smaller than those for information technology.

It is not clear that facility managers and administrators will be able to take full advantage of the information technology. The Maximus contract focuses on software development and training in its operation and maintenance, while capacity building initiatives for financial management and quality assurance are slated for Component One.

The project should develop a strategy for coordinating financial management and quality improvement capacity building initiatives with automation activities. HIO staff in facilities receiving the technology should be included in Component One's management and quality activities.

The HIO/Maximus system will provide much of the information used in contemporary care management, like utilization review, provider profiles, and DRG-based pricing. The capacity for using these techniques should be developed and institutionalized in HIO and the MOH, and the information system tweaked appropriately, if necessary.

c HIO's Changing and Multi-faceted Role in the Health Care Sector

HIO is a parastatal organization charged with providing health care to groups determined by the People's Assembly and is vulnerable to the political process. It manages a large, nationwide network of facilities, and maintains registries of its beneficiaries, through eight branches and a central headquarters in Cairo.

I *HIO's expanding responsibilities*

When CRHP began in 1988, HIO was charged with providing health care to employees, pensioners, and widows. Shortly after implementation of the HIO MIS began in 1993, school children were added. HIO's beneficiary population increased from around six million to more than 20 million. Currently HIO covers approximately 40% of the population. During the course of this evaluation, the People's Assembly began to discuss enlarging HIO's responsibilities to include the under-five age group. This action would increase the beneficiary population by some nine million, to roughly 55% of the population. And there is considerable speculation that HIO will be asked to extend its coverage to the entire population of Egypt in the future. As its beneficiary population has increased, HIO's ability to recover its costs has declined severely. By 1995, its operating deficit was approximately 300 million Egyptian pounds.

Because of these events, CRHP has already begun to expand the scope of its work with HIO, to go beyond simply providing an MIS. Maximus has been providing assistance in reorganization since the spring of 1995, and at the end of 1995 URC posted a long term advisor to assist in strategic planning and policy development.

CRHP should further expand its assistance in planning and policy by using the resources of the Data for Decision Making project (DDM) for necessary focused, short-term studies, and by making use of the information beginning to come from the MIS. By sponsoring seminars on international experience in funding public sector health care, CRHP can both disseminate information and include MOH, private sector, and academic expertise in health sector planning and policy. Topics that could be included are the social insurance programs for health care used in Germany and the Netherlands, and the single payer model of Canada.

II. *HIO's role in an evolving health sector*

The policies of the GOE that govern public sector health finance and service delivery are changing. The process of evolution will certainly be longer than the life of CRHP. And during the process policies and operational structures will be proposed, then displaced by more promising solutions. Given the receptivity and interest of HIO's current management, CRHP has a window of opportunity to assist HIO, and through this organization, to stimulate the process of health sector evolution in general.

HIO acts as both a payer and a provider of health care. HIO's revenues come from three primary sources: the Social Insurance Organization (SIO), as a proportion of employee's salaries, the Pensioners' Insurance Organization (PIO), as a proportion of pensioners' allowance, and a fixed amount of school registration fees. This is a capitated system of prospective payment. HIO receives a fixed sum to cover health care for each beneficiary, this sum is not based on the individual's likelihood of using health care. HIO also receives some revenues in the form of

copayments, primarily from government employees. As a payer of health care, HIO funds a nationwide network of facilities, it also contracts with care providers for service, using a variety of payment mechanisms ranging from fee-for-service to time-based reimbursement. As a provider of health care, HIO manages 119 polyclinics and 29 hospitals. Its outpatient care structure has gatekeepers to promote more efficient use of resources, with general practitioners referring patients onwards to more resource intensive specialist care as needed.

In many respects, HIO has a staff model managed care structure, resembling the Kaiser Permanente organization in the United States. Its revenues are primarily capitation based, it manages facilities using gatekeepers, and it contracts with other service providers. (The comparison with Kaiser is intended simply to suggest organizational similarities. HIO and Kaiser are certainly worlds apart in other terms, like quality of care.) The importance of this structure is that it provides a fertile setting for using contemporary care management techniques to improve quality and introduce efficiencies. For example, it would be fairly straightforward to review gatekeepers' referral patterns, this could reveal staff training needs and potential opportunities for increasing operational efficiencies. (These remarks are not intended to suggest that HIO will or should retain its current service delivery structure, but simply that the current structure is particularly amenable to managed change and evolution towards more efficient operations.)

International experience provides many alternatives for cost effective health care delivery. Within the MOH and HIO, discussion of the issues has already begun. Should MOH become a regulator, rather than a provider, of health care? Should HIO decouple its payer and provider functions? What are the advantages and disadvantages of different service delivery models: Health Maintenance Organizations (HMOs), preferred provider organizations (PPOs), group practices, the British family practitioner? By sponsoring seminars on these and other related topics, like the seminars described in the previous section, CRHP has the opportunity to encourage dialogue on contemporary models for health care finance and service delivery.

d MOH MIS

The Project Paper and supplement provide for an automated MIS in the MOH facilities of Component One. The PD effort in Component One has been constrained by a small MIS staff and by delays in the placement of a contractor who was to provide a strategy for information systems development. As a result, considerable time and resources would be required to develop a separate MIS in Component One.

After the evaluation team began work, it became clear that the Mission was considering adapting the CCO RFP prototypes for use in MOH facilities. The Mission had also asked the team "Do the prototype management systems developed by the CCO have applicability for MOH, HIO, or other implementing agency facilities of a similar function?" (See Annex 6.) CRHP has also

supported the development of an automated facility management system at HIO, which also has potential “applicability for other implementing agency facilities of similar function” The team has prepared an ad hoc comparison of the feasibility of using the HIO MIS in MOH facilities with the feasibility of using the CCO prototypes This comparison has been made for two reasons first, to find the most expeditious means to make an automated MIS available to the MOH facilities, and second, to respond to the Mission’s apparent interest in leveraging information system investments into “other implementing agency facilities of similar function”

Program initiatives in Component One have concentrated on creating models that are tested and demonstrated in a small number of sites, the processes and materials developed can then be transferred to other sites by the MOH The same general approach has been assumed in this comparison, the MOH should be able to continue installing and maintaining the MIS independently by the end of the CRHP In comparing the HIO MIS and CCO prototypes, the four aspects of technology transfer emphasized in both the HIO and CCO RFPs were considered software functionality, training methods, documentation, and system maintenance (see sections i-iv, below) These four areas address concerns of product suitability and sustainability The relative costs of the HIO/CCO alternatives were also compared (section v, below)

The absence of publicly available written documentation for the CCO prototypes has hampered this comparison The prototypes were developed as part of the RFP preparation, and USAID explained that its documentation requirements had been satisfied by the RFP itself While the RFP does describe the prototyping process, it does not include detailed documentation of the software modules themselves There is some documentation of the modules in CCO’s archives, and two team members were permitted to view some of the materials in the archive Two documents relating specifically to the software prototypes were shown One included information on the design and internals of the prototypes and one was a user manual In the few minutes allotted to viewing these documents it was not possible to assess the level of detail, especially of the system documentation The team members asked why this documentation had not been made available to USAID CCO explained that its policy is to use funds from various sources to support its activities, products of these activities remain the property of CCO, not the external agencies

The primary source of information regarding the CCO prototypes is verbal comments by staff of Data Processing Services (DPS), the prototype developer In its formal presentation, the DPS staff described a complete system, similar to that outlined in the RFP In the trip to Heliopolis Hospital by several evaluation team members to view the prototypes in operation, six prototype modules were shown It is common practice in the information technology industry to speak of products under development as if they are completed It is also customary to have more detailed reference for technical evaluation, so that the current development status and functionality of the product can be assessed This material has not been made publicly available for the CCO prototypes Presentations appear to have left the impression that the prototypes are more fully

functional than they in fact are, and the absence of public documentation makes it difficult to determine what, exactly, has been implemented. It was not even possible to obtain a written list of the CCO prototypes that had been completed and their functionality. The information on the prototypes included here is based on the functioning prototypes that were demonstrated at Heliopolis Hospital and on verbal communications from DPS staff.

1 Software functionality

The following table shows the basic areas of functionality expected from automated support for a facility management system. CRHP has prepared no formal specification for an MOH MIS; this comparison assumes that the basic areas emphasized in the HIO MIS contract and CCO RFP also apply to the MOH.

Software Functionality		
	HIO MIS	CCO prototypes
Integrated (communication among modules enabled)	X	
Separate Modules Completed		
Admission/Discharge/Transfer (inpatient)	X	X
Registration and Diagnosis (outpatient)	X	X
Patient Records (procedures, tests, etc)	X	
Pharmacy	X	X
Bookkeeping		X
Cost Accounting	X	X
Billing		X

System Integration. The HIO system is implemented in Oracle on a UNIX platform. Within a facility, data is kept in a single location and sent to, or received from, workstations at various locations in the facility. The CCO prototypes are implemented in dBase on an MS DOS/Windows platform. Independent, standalone PCS record and store data at various locations in the facility. The developers of the prototypes report that internally the modules use the same conventions in anticipation of the need to develop a networked system with a single data server.

The developers also noted that dBase, while useful for developing prototypes, is not the best choice for a large networked database, and their plans for implementing server architecture include converting all the existing databases and programs to an as yet undetermined database (both Access and Oracle were mentioned as possible choices)

Bookkeeping The RFP for the HIO system did not include a bookkeeping module This has been recognized as a flaw in the RFP and HIO/Maximus has prepared a feasibility study which outlines the options for including a bookkeeping module in the HIO system

Cost Accounting In the cost accounting system in the CCO prototypes, costs are distributed to centers that usually correspond to departments within a facility Diagnostic and treatment details are not retained during the cost analysis, so the costs are not distributed by diagnoses In the HIO system costs can be allocated by diagnosis, as well as by departmental centers The cost accounting system's ability to estimate costs for specific diagnoses considerably enhances support for managers' planning and budgeting decisions

In terms of existing software functionality, the HIO MIS is more complete than the CCO prototypes Both software solutions lack certain required modules, and both could be adjusted to add the required functions The analytic strategy in the CCO cost accounting module provides considerably less flexibility than the HIO solution because it does not enable cost analysis for diagnosis The biggest difference in functionality is in the level of integration of the modules HIO modules are completely integrated While the CCO prototypes have been designed with integration in mind, it is not a trivial task to implement the integration The fact that each prototype would need to be rewritten for another programming platform would make the task of integrating the CCO prototypes even more difficult

ii Training methods

The HIO contract calls for substantial effort in training, and particularly in training of trainers, so that HIO will have the ability to continue training after the completion of CRHP Training materials (both user and training manuals) and methodologies have been developed for each of the operational aspects of the MIS computer operation, data entry, patient and logistic management, and accounting HIO's training system is intended to support a turn key production system operating at a large number of facilities and could be easily extended "as is" to MOH facilities The training methodologies developed for the CCO prototypes, which rely on a "shadow group" at each facility, had different objectives By providing feedback to the developers and technical support to users, the "shadow group" proved very useful in facilitating preparation of the RFP It is not clear that this intensive support would be either necessary or cost effective in a production environment To institutionalize the capacity for ongoing training in the MOH, new training methodologies and materials would need to be developed for the CCO prototypes

iii Documentation

Thorough, accurate documentation is essential for the sustainability of an information system. The HIO contract calls for complete system documentation in the areas of design, implementation, and training (as detailed in Section 2, Accomplishments). This material is submitted to, and accepted by, USAID and is available for public inspection. The content of the documents reviewed appears to conform to industry standards. The situation with regard to documentation of the CCO prototypes was explained earlier in this section. USAID does not have technical documentation on the prototypes, and it appears that documentation of the CCO prototypes would need to be considerably expanded to allow MOH to assume ownership of the system.

iv System maintenance

The HIO contract specifically addresses a major issue in information technology transfer: the maintenance and ongoing development of the technology when the transfer has been completed. The HIO contract requires that the capacity for maintenance be institutionalized in HIO, and this process appears to be well underway (as detailed in Section 2, Accomplishments to Date). The issue of ongoing maintenance usually does not arise with prototypes, which normally have a fairly short life span. Procedures and training would need to be developed to institutionalize support for the CCO prototypes within the Ministry.

v Relative costs

The following table compares the relative costs that can be anticipated in adapting the HIO MIS and CCO prototypes for use at the MOH. Development costs indicate that substantial startup costs can be expected in providing the support required; the likelihood of incurring these costs is based on the preceding discussion. Marginal costs indicate costs associated with extending existing support to new sites.

Relative Costs				
	HIO MIS		CCO prototypes	
	Development Costs	Marginal Costs	Development Costs	Marginal Costs
Software Functionality	?	X	X	X
Training		X	X	X
Documentation		X	X	X
System Maintenance		X	X	X

Substantial development effort in each area would be required to adapt the CCO prototypes for use at the MOH. With the possible exception of development costs that might be incurred for a billing module in the HIO system, start-up costs for adapting this system can be expected to be minimal or nonexistent.

With the exception of hardware costs, there is no apparent reason to suspect that the marginal costs of the two solutions would be very different. The current versions of HIO and CCO software implementations use different system architectures. The UNIX solution (HIO) relies on a central file repository and processing unit, with “dumb terminals” attached. The PC solution (CCO) relies on independent machines; this would, of necessity, change in a networked production system, where a file server with network connectors would be required. It is also possible to use “smart terminals” (like a PC) in a UNIX system. The server and terminals selected depend on the particulars of the situation, so it is quite difficult to compare the potential platform costs of the two systems in the abstract. But some order of magnitude estimates are possible. It is assumed that costs associated with network cabling, telecommunications, power backup, and printers would be roughly the same for both platforms. Cost comparison then focuses on the hardware and commercially available software to make the machines run. In the October 1995 HIO procurement, the supplier quoted the following prices: a UNIX server with operating system, \$17,611, and a single dumb terminal, \$615. The number of terminals required depends on the size of the institution in which the system is installed. For the purposes of this discussion, it is assumed that one terminal is used for each of the seven modules. This would likely support operations in a small to medium sized facility. The total cost for a UNIX server and seven terminals (HIO platform), becomes \$21,301. For the PC solution, it is assumed that each PC with software costs \$2000, and that a PC server with software would be \$3000. The total cost for a PC server and seven terminals (sample CCO platform) becomes approximately \$17,000. For this configuration the UNIX solution is some 20% more expensive than the PC. (This analysis considers only the technology that is likely to be different between the two solutions. This is only part of the total hardware required, so the percentage variance between overall costs for purchase of the underlying technology in this example would be less than 20%.) The marginal costs of adding additional terminals, as would be required in a medium to large-sized facility, are much smaller in the UNIX solution. For example, with ten terminals attached, the costs of UNIX and PC equipment becomes about the same. With more than ten terminals, the UNIX solution becomes the less expensive option.

In summary, cost differences for the underlying technology are small and may well even out over installations of different sizes.

vi *Summary of options for providing a MIS for the MOH*

In terms of system functionality, training, documentation, and maintenance, the HIO MIS is more complete than the CCO prototypes. The major difference in the cost of implementing the two solutions lies in the costs of start-up development. Using the HIO MIS at the MOH is likely to be a less expensive solution than adapting the CCO prototypes. Based on criteria for robustness of product, on available and ongoing support, and on cost, the HIO MIS appears to be preferable to the CCO prototypes for use at the MOH.

After the evaluation team arrived at this recommendation, it learned that a very similar recommendation had been made in April 1995, by a Technical Review Committee consisting of members of the PD, HIO/Maximus, and USAID. Although the recommendation is recorded as having received verbal support from USAID CRHP staff and USAID's internal information technology review board (IRM), apparently no action was taken on the committee's recommendation. The current evaluation provides independent support for the original recommendation of the project's own Technical Review Committee. It remains unclear why the earlier recommendation was not acted upon.

vii *Collaboration between HIO, MOH, and contractors' staffs*

There is one area of redundant overlap between the URC and the Maximus contracts. Task five of the URC contract calls for institutionalization of training in MIS across all components. HIO training in MIS operation is certainly covered by the Maximus contract, so it is not clear what is intended by the URC task. If the preceding recommendation regarding use of the HIO system at the MOH is adopted, MOH's training needs for operating the MIS will also be met. The need for more extensive training for administrators, financial specialists, and clinical supervisors in using the information for decision making has been pointed out in section 3 b, above, and URC's staff already has the skills and background for this type of training. Task five should be eliminated from the URC contract because training in MIS operation has already been institutionalized at HIO. URC training resources directed towards the MIS should focus on the professionals who will be using the information from the system for management.

The HIO system should be strengthened in two areas by collaboration with MOH/PD/URC expertise. While the system includes a cost accounting module, there is no bookkeeping module. This has been recognized as a flaw in the original system specified by the RFP, and HIO/Maximus has prepared a feasibility study outlining options for developing such a module. Since the bookkeeping functions must accord with the Government of Egypt's standards, and since adoption of such a system is a particular concern of financial specialists from URC and PD, development of a bookkeeping module should proceed as a collaborative effort by specialists from Components One and Two. A second area of concern is a system for tracking pharmaceutical sales by HIO contracted pharmacies. HIO spends nearly 60% of its budget on

pharmaceuticals, and it is clear that the system is subject to several types of fraud. Two steps are necessary to implement a system for contracted pharmacies: 1) adoption of a uniform coding system for pharmaceuticals, a step which should be taken with the advice and consent of the MOH, and 2) development of an inventory and point of sales system for pharmacies. CRHP should support this effort, again by collaboration of specialists from Components One and Two.

e CCO MIS

The team's recommendations concerning the CCO MIS have generated some heated discussions. And the team's own difficulties in formulating a clear and consistent statement of its observations and recommendations may have created misunderstandings. In its response to an earlier draft of this report, the Mission included the following statement:

"CCO has a reputation for delivering quality health care services and the Mission shares the view expressed by leading officials in the sector that CCO hospitals are among the most well managed and highest quality service delivery facilities in the country, private sector hospitals included. We therefore firmly believe that the CCO does indeed have something to contribute to cost recovery—namely operating examples of the ability of public sector facilities to deliver quality health care services. We strongly believe that there is merit in promoting a pluralistic health care delivery system in which providers compete for business. CCO can be a strong player in such a pluralistic system and this alone may be sufficient reason to include the organization and its associated hospitals in cost recovery programs designed to increase quality of care, quality of service, and operating efficiency."

The Evaluation Team does not dispute these statements. Clearly it should be to everyone's advantage to include CCO in CRHP activities. The challenge is to create a relationship in which CCO receives useful assistance and contributes its experience and expertise to Cost Recovery programs in other public sector facilities.

1 CCO's preparation for MIS installation

The Project Paper Supplement includes the following rationale for assistance under Component Two: "HIO and CCO use outdated management practices. Component Two will provide effective programs to modernize the HIO and CCO management systems" (p. 19). The emphasis on improving management is repeated in CCO's Annual Implementation Plan for 1994, even in its reading line: "*MANAGEMENT IMPROVEMENT FOR COST RECOVERY*" (italics and capitals in original). "CCO's primary objective in the CRHP project is to enhance clinical and administrative management systems, in order to support an increased cost recovery and an improved quality and accessibility of care."

The team had lengthy meetings with the current chairman of the CCO and with his predecessor, who had recently retired. The purpose of the meetings was to learn of improvements in CCO's management and quality assurance systems as projected in the Project Paper Supplement and the Annual Implementation Plan. These documents speak of improvements within CCO, and the Evaluation Team's scope of work therefore calls for assessment of the improvements.

The team learned that the 12 hospitals that comprise the CCO function independently, with no direct corporate management by the chairman and small central staff. (CCO also has loose affiliations with some 20 other hospitals, primarily in Alexandria and Suez.)

Both the current and the former chairmen indicated that the process of "management improvement" had not affected the chairman's management decisions and appeared surprised that changes might be expected at the central level.

Both chairmen are aware of the CRHP automation activities in CCO and of the work with the prototypes and forms development. But the term "management improvement" appears to mean simply improving clerical and transaction processing. It is not clear how CCO intends to translate these improvements into "increased cost recovery and an improved quality and accessibility of care." For example, it appeared from the CCO's perspective that the main benefit of automation has been the regular appearance of a weekly financial statement which is both neat and timely. There was little indication that the new financial statement is used to make decisions differently than previously.

The distance between the goal of "improved management" through an automated MIS and the reality of the current management system can be illustrated by the system that supports quality assurance. CCO's vision is to provide automated support for the provider's decision making process. This is an admirable and attainable (albeit distant) goal. To achieve it, the automated system must operate from a standard set of diagnostic and treatment protocols. Egypt has no national standards, so CCO has obtained photocopies of standards from other countries.

Physicians practicing at CCO must agree to observe these standards. The standards themselves are retained in CCO's archives, and physicians may consult them there.

In contemporary standards-based quality assurance systems, compliance with the standards is assured by regular case review. The review may take many forms: from peer review with no automated support, to on-line immediate feedback of the sort envisioned by CCO. International experience indicates that the adoption of standards is a slow and sometimes painful process.

Physicians accustomed to independence and authority may be unwilling to accept external standards. The case review process is often used to introduce standards. Physicians have the opportunity to learn from each other, and in the process acquire ownership of the standards.

CCO has initiated training of nurses in standards and protocols, as described previously, in Section 2, Accomplishments to Date. However, there is no schedule or plan for the training of physicians in the standards, or for introduction of the case review process, even though CCO management is aware of these techniques, and commented quite rightly that they should be introduced on a departmental basis. There is little evidence that CCO is initiating the changes in its quality assurance system that are necessary to use the MIS to further improve quality.

The natural question is: if these observations are accurate, if CCO doesn't have a modern quality assurance infrastructure, then how is it able to maintain such a high level of quality? It is not the team's task to answer this question. But experienced CRHP and contractor staff provided a clue: economic incentives. CCO has ten percent of its beds reserved for "free" patients, whose fees are subsidized by the government. The remaining 90 percent pay fees to CCO and, directly or indirectly, to physicians. CCO staff are better paid than their colleagues in MOH and HIO facilities, where the proportion of free to paying patients is approximately reverse: 90 percent to ten percent. Chief physicians at the MOH CRHP facilities expect to improve quality by increasing the proportion of fee-paying patients so that they can then offer better salaries and attract more qualified physicians.

Whatever the explanation, CCO clearly has expertise in quality assurance that would be useful to both HIO and MOH.

In addition to the concerns regarding management improvements, several other facts mitigate against a positive outcome from installation of the "state-of-the-art" MIS proposed in the RFP.

The system calls for concurrent processing, with a number of work stations where most aspects of patient care and management can be entered into the system as they occur. For example, data like laboratory tests and procedures are entered when they are ordered, and the results entered when they are known. Frequently it is the nurses who operate the system and must follow a specific protocol in responding to the information. While training nurses in standards is an essential first step in using such a system, it is not the only step. Physicians' diagnostic and treatment protocols also need to be in place and coordinated with the standards nurses follow or there is a very real possibility that the online and real time aspects of the system can engender confusion and will not be used.

Implementation of the CCO MIS as specified by the RFP also appears problematic, because the RFP projects a schedule that exceeds the lifetime of the CRHP project. As of February 1, 1996, CRHP had a lifetime of 32 months, the RFP calls for 31 months of work at Pyramid Hospital, 36 at Heliopolis, and 44 at Nasser Institute. If the RFP schedule is observed, the CCO MIS implementation would run for more than a year beyond the end of CRHP.

In summary, the team doubts that the MIS can be installed within the lifetime of the project. If installed, the absence of appropriate protocols and standards to govern real time use of the information may render system operation problematic. The team saw little evidence that managers at the highest level are prepared to use the MIS to improve their management or that they are prepared to guide hospital managers in using the system to improve management. There is also little evidence that CCO is introducing standard compliance measures for physicians into its quality assurance operations. The team doubts that CCO central management is prepared to use the MIS “to support an increased cost recovery and an improved quality and accessibility of care.”

USAID is about to award a contract for development of a “state-of-the-art” MIS for CCO. It is the consensus of the evaluation team that this contract should be terminated.

ii MIS support at CCO

The team agrees with the Mission that CCO is a key player in public sector health care in Egypt and that CCO’s participation in CRHP is desirable. In addition, important preparatory work has been done at CCO: forms have been audited and revised, and clerical staff have begun to use the automated prototypes in their daily work.

In terms of the institutional culture and infrastructure required to support a contemporary automated MIS, MOH, HIO, and CCO are at roughly the same level. Each organization has had some experience with cost accounting, but none has apparently been able to use this experience to introduce efficiencies into the system. No organization has introduced regular and systematic peer case review, except for pilot work done at the MOH’s 15th of May Hospital. HIO and CCO are even struggling with similar problems in institutionalizing the use of the system. For example, introducing diagnostic codes into a facility where they are rarely required presents numerous problems. Both HIO and CCO report that the institutions have decided to ask physicians to determine the diagnostic codes. The physicians must then be trained and encouraged to use the codes. Both HIO (in outpatient forms) and CCO (in discharge forms) report similar difficulties in changing physicians’ behavior patterns.

For each organization, management strengthening is the most critical element in using an MIS to manage health care more effectively. In lieu of a separate software system, CCO should be offered the HIO/Maximus system and participation in the organizational, financial, and quality management trainings already proposed for MOH and HIO facilities.

To date CRHP has little success in stimulating collaboration between CCO and the other CRHP participants. By including participants from CCO, MOH, and HIO in management, financial, and quality trainings, CRHP creates a setting in which all participants have an opportunity to

learn from each other. Each organization stands to gain from the shared training, and the common experience may lay the groundwork for ongoing cooperation.

The CCO RFP calls for a greater degree of automated support than provided by the HIO MIS. The question is, how much functionality is really lost, and the answer is, not really very much.

Based on a comparison of the Maximus contract and the CCO RFP, there appear to be four primary differences between the MIS systems proposed for each organization.

1. The CCO RFP specifies a “knowledge base” of online reference materials to be installed in the Nasser Institute Hospital. The “knowledge base” is intended to grow, both from records of treatment in the hospital and from information and protocols adapted from the outside.

Eventually a practitioner would be able to call on this information when making diagnostic and treatment decisions. While this is certainly an admirable vision, it will require concrete steps to institutionalize the standards required to make this type of system operate. If the goal is simply to have an online set of reference materials, similar to the materials already in the CCO archives, these are commercially available.

While the alternative of commercially available resources does not correspond to the functions specified in the RFP, it is a very useful starting point. It provides an inexpensive alternative that can be made available to many facilities, rather than a high tech solution that would be available only to the Nasser Institute Hospital.

2. The CCO RFP calls for concurrent processing, in which most aspects of patient care and management are entered into the system as they occur. This produces an up to the minute data set that can present the most recent information about a patient or hospital department. As pointed out previously, the infrastructure to support this type of operation does not appear to be in place. In contrast, in the HIO system, data is recorded at set times of the day, instead of as the event occurs. The result is that the online information about a patient may not be absolutely current, the maximum delay would seem to be approximately one day. As staff become more comfortable using the computers, and as necessary standards and procedures are developed, the HIO system could approach concurrency by the simple expedient of installing more work stations so that staff can enter and use data as it becomes available. There are some details of patient management called for in the CCO RFP that are not recorded in the HIO system. However, it appears that the same clinical data elements are recorded in both systems.

3. The CCO RFP calls for automation of hospital hotel services, inventories, and procurement. These are generally not included in the HIO system.

4 The CCO RFP includes bookkeeping, billing, and payroll modules, which are not included in the HIO system (although they could likely be included fairly easily)

Of these differences, the CCO may not be able to take full advantage of two enhancements, because the necessary practice standards are not in place (the “knowledge base” and concurrent processing) The HIO system is not concurrent and does not have the potential to disrupt operations in the same way that the concurrent system does Some core modules like bookkeeping, billing, and payroll would enhance the system’s usefulness in HIO and the MOH and could be added The remaining difference is automated support for hotel and logistic services While useful, these tools are hardly essential

D COMPONENT THREE—EXPAND PRIVATE SECTOR FINANCING OF INDIVIDUAL AND GROUP PRACTICES AND DEVELOP ALTERNATIVE MANAGED CARE MODELS

1 Inputs, Outputs, and Subpurpose

The subpurpose of Component Three is to expand private sector financing of individual and group practices, as well as to develop prepaid care practices

When the project began in 1988, there was a widespread concern that government health services were not meeting the health needs of the population and additional financial resources would not be available through traditional government budgets to expand health services To begin the process of making more health services available through the private sector, the project attempted to make adequate financial resources available through normal banking channels to stimulate the growth of both individual and group practices, especially in Upper Egypt and in rural areas throughout the country There was a strong feeling that individuals and group practices were unable to obtain adequate financing through normal commercial banking channels, especially in the rural areas of the country At the same time, there was growing interest in developing alternative managed care models as demonstrations of how affordable health services could be provided through the private sector The concept of health maintenance organizations (HMO) was known among some health professionals, but no HMO had been established

Inputs for Component Three total \$2,563,961, plus the LE equivalent of \$10,000,000 for the CGC loan guarantee fund described below Most of the inputs have been for technical assistance and training

The planned outputs for Component Three and the specific indicators of progress described in the Project Paper Supplement are described in each of the sections below

It was originally envisioned that the “prime contractor” would be responsible for the provision of technical assistance and the coordination of all activities in Component Three. Unfortunately, this contract was not awarded to URC until seven years into the project. With only two and one half years left in the project, it may be difficult for the project to meet all of the planned outputs. Outputs One and Three have already been achieved although the usefulness of Indicator One is questionable and will be discussed in more detail below. There is a reasonable chance that Output Two will be reached. However, it is unlikely that the ambitious indicator for Output Four can be achieved within the life of the project. Technical assistance through the CRHP has supported development of an HMO through the Suez Canal Faculty of Medicine and improvements in the health insurance plan provided by the Health Insurance of the Medical Union through the Medical Syndicate.

Discussion of Component Three is divided into five parts: private sector, Credit Guaranty Corporation, managed care, Suez Canal University-Faculty of Medicine, and Medical Syndicate.

2 Private Sector

a Outputs

The 1993 Project Paper Supplement sets forth the following outputs to support expansion of the private sector:

- Development of general guidelines for private practices and pre-paid systems
- Workshops and seminars to upgrade private sector management, administration, and quality of care
- Development of management guidelines book in Arabic and training curriculum for individual and group practitioners (to include office management, MIS, staff requirements and work plan development, accounting and billing, use of commercial banking and credit systems, patient registration and record keeping, laboratory operations and contracting)
- Management training for individual and group practitioners
- Software development for individuals and group practitioners

b Accomplishments to Date

In the absence of a technical assistance contractor, there has been little CRHP activity under this subcomponent.

c Conclusions

A URC technical advisor has recently assumed responsibility for developing an implementation plan for 1996

Much of the analysis needed to determine if and how the private sector should be expanded is not available. Without an understanding of the current status of the private sector it is premature to attempt to expand it. Furthermore, it will be very difficult to develop management materials and training until the needs of the private sector have been assessed.

d Recommendations

There is a need to assess the current and future potential role of the private sector as the health sector is reformed. Within the existing URC contract for Component Three, there is a large level of effort available to initiate and complete studies of the health sector. Some studies should focus on the private sector. Given the limited time remaining in the CRHP, these studies should utilize secondary data sources when possible and employ methods that are minimally time and labor intensive such as rapid assessment analysis. URC should build upon the previous DDM work in this area and closely collaborate with DDM in completing further studies. Some of the areas in which further research is needed include: 1) types of services provided by the private sector, 2) the impact of the dual role that providers play in the public and private sectors, 3) feasibility of developing private provider organizations, 4) use of allied health professionals in the private sector, 5) feasibility of establishing regulations or controls on the private sector and the pharmaceutical industry, 6) alternative financing schemes, 7) techniques for organizing community financial support, 8) the effects of CR on preventive services, and 9) the effects of CR on the impoverished population.

Once the current situation of the private sector is better understood, URC should begin a dialogue within both USAID and the MOH about the role of the private sector and possible options for influencing this sector. Attention should be given to issues of equity and quality.

The development of guidelines and materials should be delayed until the potential role of the private sector has been defined. Every effort should be made to utilize management materials that have already been developed for the MOH, CCO, and HIO. Private providers should be included when the project gives management training, workshops, and seminars to other health sector providers. The project should not develop new software in light of the substantial funding already provided for software development in other components of the project.

3 Credit Guarantee Company (CGC)

The Credit Guarantee Company is a private for-profit corporation established with USAID funds in 1990 to encourage banks to make credit available to small enterprises. In 1991, USAID provided the LE equivalent of US \$10 million to guarantee loans to health care providers and

thus reduce the amount of collateral required for practitioners to begin or expand their private practices

a. Outputs

The 1993 Project Paper Supplement set forth three measures of success for the CGC

Output One Improved commercial banking system to provide financial services to health care providers

Indicator One Ten commercial banks actively participating in the program

Output Two Increased number of new or expanding private sector health care providers, particularly in rural and secondary cities

Indicator Two 5,000 loans to new or expanding private sector health care providers

Output Three Viability of new or expanded practices

Indicator Three Default rate of no more than 10 %

b Technical Assistance

Outside of the initial assistance provided by a locally contracted economist, Dr Medhat Hassanem, the CGC has received little technical assistance from USAID for the implementation of the program due to the delay in identifying a prime contractor. One exception was a brief assessment of the program in 1995 through a buy-in to the FSDP II project which was implemented through a contract with KPMG Peat Marwick.

c Accomplishments to Date

The CGC has only been moderately successful. Through December 1995, the CGC has guaranteed 1,897 loans (representing LE 77.8 million) to medical providers. While there were some 20 banks participating in the CGC program at the end of 1995, 71% of all loans have been through the National Bank of Egypt. A full 84% of all loans have been through five banks. The default rate is remarkably low, about one quarter of 1%. The five defaults represent LE 160,095 uncollected (0.2% of total loan guarantees).

With the initiation of activities by URC, the operation of the CGC has been reviewed and a number of positive changes are underway which should assist the CGC in approaching the three EOPS indicators of success. A proposed amendment to the Guarantee Facility Fund Agreement between CGC and USAID has been negotiated and should be approved soon. The new agreement provides several incentives to CGC to develop and implement an aggressive market and training strategy. Under the proposed agreement CGC will receive LE 1500 for each loan guarantee, retroactive to January 1, 1995, for marketing the loan guarantee program and training both recipients and potential loan applicants. The CGC will also have 100% of guarantee funds, instead of 20%, to use for program administration.

d Conclusions

The importance of CGC's role in the health care system is uncertain. Based upon recent health sector reviews and surveys, it does not appear that the private health sector is constrained in obtaining financing through the banking system. It is not clear what impact or influence the CGC loan guarantee program has had on the private sector.

e Recommendations

Provide no further technical assistance to the CGC until its role is better defined. USAID, URC, and the MOH should consider undertaking several studies to assess: 1) the need for credit among private providers, 2) USAID's and the MOH's leverage in influencing the role and growth of the private sector, 3) the success of the CGC in influencing private sector investments, and 4) if and how CGC might play a role in private sector development, including the possibility of creating a revolving fund to support loan guarantees to MOH facilities for financing renovations and capital purchases. The studies need not be time or labor intensive and could be included within the URC workplan for 1996 and 1997. Each recommended study is elaborated upon below.

Over the last decade, Egypt has undergone an economic transition which has placed greater emphasis on market forces. As a result it appears that credit to health providers may be widely available both in the form of direct bank loans (outside of the CGC program) as well as through more indirect sources such as purchasing of equipment on time. A survey should be undertaken to identify how widely available and utilized these mechanisms are across both geographic regions and socioeconomic strata. The goal of this study should be to determine if credit is the best mechanism for directing the growth and role of the private sector.

Analyses should be undertaken to better understand how the CGC program has contributed to the distribution of private sector physicians by examining the type of practices CGC participants have established and whether this is consistent with the way in which USAID and the MOH would like to see the private sector develop.

Based upon the findings of the previous work, the CGC program should then be evaluated as to if and how it could be used to foster further development of the private sector. Targeting, or even limiting the program to specific types of providers, (i.e., female obstetricians and gynecologists in the more conservative regions of Upper Egypt, general practitioners, high-risk borrowers) should be considered.

A study should also be done to explore the feasibility of utilizing the CGC or a revolving fund to guarantee loans for MOH facilities. As these facilities move towards becoming autonomous enterprises and begin to generate revenues, this fund may be a mechanism to assist with renovations and capital purchases. The legal issues regarding borrowing by public sector institutions would have to be included within the study.

Analysis should also focus on the need for having a large number of banks participating in the CGC program. If the five largest banks (which have provided some 84% of all loans to date) are easily accessible to the target population, then there is no reason not to focus all marketing and training activities at these banks, which already have demonstrated a relatively strong willingness to utilize the CGC program.

4 Managed Care

The second goal of Component Three is to develop managed care models for the delivery and financing of health services. The 1993 Project Paper Supplement contained one specific output for managed care.

Output Four Development of new private managed health care systems (HMO-like schemes)

Indicator Four Two new schemes operational

a Limitations

There is still no general policy within the GOE that there should be a transition to managed care for the majority of health services provided within the country. Any transition to managed care is not expected to be an easy process, nor a process that will be initiated on a large scale within the near future. The development of managed care models in Egypt will be hindered because many of the important managed care concepts are not well understood outside of some health specialists.

Efforts under the CRHP related to managed care are the activities to promote development of an HMO through the Suez Canal University-Faculty of Medicine and support for the health insurance scheme operated by the Medical Syndicate.

b Recommendations

Build the capacity for the possible future transition to managed care. Technical assistance should be directed to improving the understanding of managed care concepts and practices, as well as, developing the technical skills needed for implementing managed care. One of the most valuable contributions USAID and its contractors can make would be to organize seminars and workshops on important managed care principles using resident advisors as well as consultants working in Egypt on a short-term basis. Access to current publications on managed care and other health-related issues should be improved. The project should consider establishing a documentation center open to the MOH, CCO, HIO, and the private sector.

Local technical expertise should also be developed. This could be done by establishing a close working relationship with a research and policy institution, such as the Social Research Center at the American University of Cairo. There are a large number of technical issues which need to be explored as the health system moves towards managed care. A mentoring relationship with local researchers and policy makers as this work proceeds is essential. Some of the technical

issues which should be examined include 1) the development of the DRG system in other countries and its applicability to Egypt, 2) review of managed care in other countries, and 3) mechanisms to monitor physicians which can prevent abuse of the system

All Component Three activities should be conducted collaboratively by URC, Maximus, and DDM Every effort should be made to utilize the information and technical capacities available at the HIO, CCO, and Medical Syndicate

5 Suez Canal University - Faculty of Medicine

a Outputs

The 1993 Project Paper Supplement called for the development of two new private managed care systems to serve as models of innovative financing and delivery schemes The paper anticipated that one model would be an HMO established at the Suez Canal University Faculty of Medicine The development of this HMO began as the university hospital, group practice, and primary care centers sought a means to reduce or eliminate university subsidies

b Accomplishments to Date

To analyze the feasibility of establishing an HMO at SCU-FOM, the Cambridge Consulting Corporation (CCC) hired a team of HMO consultants to study the proposal in August of 1994 In addition, the USAID/W, Global Bureau Initiatives Project completed a comprehensive review of the SCU group practice in 1994 In January 1996 URC held a seminar to increase knowledge within the university of the HMO proposal and to begin the process of planning Under the URC contract, one international consultant and an Egyptian specialist provide technical assistance to the SCU-FOM

c Conclusions

Given the complexities of establishing an HMO and the long delay in getting a prime contractor to provide the needed technical assistance, it is not reasonable to assume the process of establishing an HMO will be completed by the time the CRHP ends A number of conditions have changed since the idea of developing an HMO at the SCU-FOM was first discussed, there is growing competition for patients in the area from other health facilities, the doctors who participate in the group practice have changed, and the length of time and complexity of establishing an HMO were greatly underestimated Furthermore, CRHP experience has demonstrated that establishing a model requires an intensive amount of technical assistance This will be particularly true at the SCU where the faculty has only a limited understanding and capacity to undertake this process Lastly, there is some concern that the University's level of commitment has fluctuated

d Recommendations

The project should assist in developing a sustainable capacity within the SCU-FOM to create and manage an HMO. Technical assistance should be limited to information dissemination and a discrete amount of technical capacity building.

Until the University demonstrates commitment and obtains the necessary legal status for the proposed HMO, URC should not increase its level of technical assistance.

Any further assistance must continually be linked to performance and should utilize materials and training opportunities developed for the MOH, CCO, and HIO.

No technical assistance or funding should be provided for the development of additional software nor for hiring university/HMO personnel.

6 Medical Syndicate

a Outputs

Although not clearly specified in the 1993 Project Paper Supplement, technical and financial assistance to the Medical Syndicate (MS) may be considered as support for the second managed care model to be developed under Component Three.

The Medical Syndicate is responsible for licensing all physicians and for maintaining professional standards. It is one of 21 professional syndicates. The Egyptian Medical Union is comprised of members of four syndicates representing physicians, pharmacists, dentists, and veterinarians. At present there are approximately 200,000 members. In 1988 the Medical Union established a health insurance plan (Health Insurance of the Medical Union, HIMU) for its members. As the CRHP was being designed, it was believed that this insurance model could be enhanced and possibly replicated to include other sectors of the population, particularly other professional syndicates such as engineers.

b Accomplishments to Date

Based on information included in the feasibility study and from interviews with MS management, it is clear that the HIMU is a well developed insurance plan. Several features of this program stand out:

- ▶ A clearly defined benefits package
- ▶ A number of cost containment mechanisms are in place including ceilings on coverage, a copayment system which encourages use of lower cost services and providers, a negotiated payment system, and utilization controls.

- ▶ An accreditation system for providers
- ▶ Annual prepaid premiums

It was originally envisioned that the prime contractor would be fully responsible for all technical assistance to the MS. With the delays in getting a prime contractor however interim support was provided directly through USAID in 1993 when a feasibility study of the proposed activities was completed. Based upon the findings of this study, the prime contractor is charged with providing the MS training, MIS support, and other general technical assistance. Currently the prime contractor is assessing the situation to determine how to implement this technical assistance.

c Conclusions

The MS subsidizes approximately one-third of the HIMU operating expenses and all capital investments, and currently is running a deficit of nearly LE 2,000,000 annually. There is some indication that the HIMU is able to obtain discounted fees as a result of professional courtesy which may not occur if the program is expanded to other populations.

It is not clear that expansion of the HIMU is feasible or even desirable under the CRHP. Expansion of the program will be limited by this fact. It is doubtful that the program can be expanded and remain financially viable.

Even if these operational issues were resolved the larger question remains as to whether USAID and the MOH should actively encourage and assist the development of such insurance plans. Encouraging the development of multiple insurance plans will lead to greater fragmentation of the health insurance sector and encourage a two-tiered system of health care. While such insurance plans may be an inevitable outcome of a free market system there is no reason for USAID to be assisting with this development.

d Recommendations

In exchange for technical assistance to improve management capabilities, the Medical Syndicate (MS) should use its institutional forum and membership to broaden the discussion of managed care issues. The MS will be a powerful group as the health sector is reformed. In addition the MS has incorporated a number of managed care concepts into their plan and are clearly a valuable source of experience and information. The MS should be encouraged to share their experience through seminars, conferences, in-house training programs, and provision of consulting services. In return URC should assist the MS to improve its system by providing access to management training, software, and other materials produced for the CCO, HIO, and MOH. No technical assistance should be provided for the development of software.

E OVERALL PROJECT DESIGN, MANAGEMENT AND RESOURCE ALLOCATION ISSUES

Structural Change in the Provision and Financing of Health Care in Egypt

Governmental and quasi-governmental health care insurance, finance, and delivery organizations in Egypt are under pressure to meet the steadily growing demands of the Egyptian people for more and better quality health care services. Although portions of Egypt's population suffer from diseases largely attributable to poor public health, it is mainly the growing demands for curative services from higher income, better educated, and aging groups of the population that are responsible for the strains on the Egyptian health care system. The health care demands of these individuals stem more from chronic diseases and expectations for cure through acute, inpatient and outpatient care delivered by physician specialists. It is within this context that the Cost Recovery for Health Program must operate.

1 Project Refocus

a Strategic Objective

As stated in the 1993 Project Paper Supplement, the overall rationale and strategic objective for cost recovery is to increase patients' direct payments for medical care in order to reduce direct governmental subsidies for these services. By reducing outlays for curative care, the project would enable the Ministry of Health (MOH) to increase expenditures for public health programs. The Evaluation Team finds that the current project activities extend beyond efforts to broaden and diversify approaches to financing personal health care services.

Given a perfect world, the Evaluation Team would recommend changing the project strategic objective to providing assistance to improve the operations of health insurance and health care provider organizations in order to facilitate a transition to managed care in the Egyptian health care system. This objective would be more representative of project activities and would provide a better guide for directing the project. However, the team recognizes the difficulties and length of time involved for USAID and the MOH to make such a change in project documents at this late stage of the project. The team also recognizes that the concept of managed care has not yet been accepted by the MOH as its policy, although already over half of the population are covered by national health insurance.

Some health services researchers have hypothesized that the cost containment features of managed care may encourage providers to withhold care from patients. In other words, patients may be discharged from hospitals before they are well, or physicians may not conduct a sufficient number of tests to render a proper diagnosis. Although there have been several investigations to test this hypothesis, to date there is little evidence to support a conclusion that patients under managed care receive lower quality care than patients in other care settings.

For those readers who may not be acquainted with the concept of managed care and some of the terms that are used to describe its features, please refer to the glossary of terms included in Annex 7

b Cost Recovery Through Fee-for-service Payments

Operationally, some project resources have been directed toward obtaining governorate decrees that permit MOH facilities to charge patients fees-for-services. Earlier in the project, there apparently was some resistance to granting decrees that “converted” facilities to cost recovery status. The Evaluation Team finds that today any such reluctance seems to have totally disappeared. The Undersecretary for Minister’s Affairs, Dr. Hassan El Kalla, reported that several unsolicited requests to convert MOH hospitals to cost recovery status have come from the governorates. Other provider institutions that are not regulated by the MOH are also exploring cost recovery. Because public officials and hospital administrators now appear to embrace the concept, decrees may be available for the asking. There no longer is a need to “carry a banner” for cost recovery. Furthermore, as was discussed under Component One, there is no longer a compelling need to follow the complex and costly process of converting hospitals that was established under Phase A. If additional hospitals are to be converted to cost recovery, a much simpler and less costly process should suffice. The Project Paper Supplement, in fact, proposed that USAID funds for Phase B hospitals should not involve the extensive and costly remodeling and large equipment purchases.

However, there is an additional reason for downplaying cost-recovery that stems from the likely incentive effects of fee-for-service reimbursement in MOH facilities. Revenues raised in this way are being used to increase physicians’ salaries and to provide additional funds for equipment and improvements. As intended, converted institutions now have greater independence and flexibility in decision making for resource allocation, facilities management, quality control, and community relationships.

The site visits to Shark El Medina and Kafar El Dawar facilities produced evidence, albeit anecdotal, that fee-for-service reimbursement in these facilities is encouraging increased utilization of specialty services, particularly surgical procedures. These facilities are giving priority to adding diagnostic equipment and facilities to support increased provision of specialty services. The likely long-term effect will be for fee-for-service reimbursement to stimulate increased emphasis on, and utilization of, specialty services relative to primary care. This runs counter to the project’s stated aim of increasing MOH revenues so that additional funds could be made available for preventive health services. As fee-for-service cost recovery continues, some specialty services may be used excessively and inappropriately. Managed care replaces fee-for-service reimbursement with per case or per capita reimbursement to achieve cost-containment and improve quality. Long-run support for fee-for-service reimbursement is probably undesirable, especially as Egypt moves to adopt managed care to contain costs and improve the efficiency of the health care system.

c *Sector-wide Analyses for Personal Health Care Services, Pharmaceuticals, and Other Related Health Care Industries to Guide the Work of CRHP*

At the beginning of the project, USAID did not evaluate the potential impacts of cost recovery on the health care system as a whole or assess whether these potential impacts were compatible with Government of Egypt objectives for access, utilization, costs, or quality of care. In addition, no effort was devoted to preparing descriptive analyses of the Egyptian health care sector to serve as guides or benchmarks for the project. The Project has suffered as a consequence of this lack of background information.

To correct this situation and to prepare for future, related projects, the Evaluation Team recommends redirecting some project TA resources to undertake sector-wide analyses for health care financing, provision of personal health care services, manufacture and distribution of pharmaceuticals, and other related health care industries. These analyses should be forward looking. They should anticipate a future reliance on managed care organizations to provide a majority of medical care services for Egyptians, and they should address potential impacts of new health care education policies for health care professionals. Some of the specific types of studies that can be undertaken within the remaining project period are discussed under Component Three of this report.

2 *Development and Improvement of Managed Care Organizations*

a *Increasing Numbers of Egyptians Have Health Care Financed and Provided by Health Insurance Organization (HIO)*

The HIO is of strategic importance as an organization for shaping the future health care delivery system of Egypt. HIO, through various health insurance programs for workers, pensioners, and school children is currently responsible for financing health care services for over 40% of the Egyptian population. The Egyptian People's Assembly is currently debating whether to add preschool children to the HIO roles which, if approved, would make the HIO responsible for the health care needs of over half of all Egyptians.

Compared to CCO or MOH cost recovery facilities, which do not finance health care, the financing features of HIO give the organization potentially great economic power to act as a vehicle for reform in the Egyptian health care sector. The large number of beneficiaries enrolled under this single insurance organization also provides the HIO with an important opportunity to configure health insurance benefits packages for population groups. As a health care payer in its own facilities or in contract facilities, the HIO can also easily monitor the utilization of services and costs of health care for Egyptians.

Of perhaps greater importance, however, is HIO's role as a provider of health care. In carrying out its provider functions, HIO is organized as a health maintenance organization (HMO). An HMO is a prepaid managed care plan in which beneficiaries receive services through a system of affiliated hospitals, clinics, physicians, laboratories, etc. An HMO provides its beneficiaries with

comprehensive curative and preventative benefits. These are financed through prepaid capitated premiums and limited copayments. HMOs employ utilization management and utilization review techniques to control utilization of services. Specifically, in ambulatory care, general practitioners are used as gatekeepers and provide access to specialists through referrals. This feature is essential in reducing unnecessary specialty and inpatient care. A staff model HMO (Kaiser-Permanente) owns its facilities and employs its physicians directly. A group model HMO contracts for services from facilities and physicians that are owned and employed by other organizations.

HIO has functioned as a staff model HMO since the mid-1960s for services provided to its members in HIO hospitals and clinics. In 1992, with the addition of the students to the HIO rolls, the organization has found it necessary to contract for services from other provider organizations. At this time, these contracts cannot be considered as managed care arrangements because they lack the utilization management features of delivery of services under a group model HMO. However, there is clearly the potential for HIO to improve its contracting capabilities, to use its economic power in the health care market place, and to mold its contracts so that their contractees act as group model HMOs in providing services.

b The Strategic Potential of HIO as Provider to Improve Managed Care Capabilities for Egypt

As indicated above, HIO is unique in Egypt as an example of a potentially large, organizationally-integrated staff model HMO organization (Kaiser-Permanente) with gatekeeping and referral functions in place. Unfortunately, a large portion of its beneficiaries consider their HIO services to be of inferior quality and refuse to use the facilities. In addition, HIO has been running deficits since the late 1980s in part because it is not able to control the utilization or costs of services. Improvements in provider operations, especially in utilization management, utilization review, quality control, contracts monitoring, and benefits packages are badly needed. The Evaluation Team recommends redirecting some TA resources within the CRHP project to help establish these functions within HIO and disseminate them to other health care organizations through HIO contracting. These tasks can be completed within the remaining years of the project.

3 Project Management

a Project Steering Committee or Another High-level Policy Forum for the Project

A project steering committee was contemplated in the 1988 Project Paper and was created, however, it met only twice early in the life of CRHP and has not been a useful instrument to provide policy guidance to the project. Currently, there is no central focal point at the ministerial level for collecting, reviewing, and coordinating the policy implications of CRHP activities for health reform generally. The Evaluation Team believes there should be a high-level (possibly ministerial) committee that serves as a focal point and clearinghouse for the activities of the

CRHP that affect policies of the Ministries of Health, Finance, and Social Insurance, the public agencies, HIO and CCO, and other ministries and agencies involved with health care in Egypt

b Project Officer Role

The small size of the project office staff, the number, size and complexity of contracts, and the variety of institutions and numbers of individuals involved in CRHP are quite apparent. The project officer holds regularly scheduled meetings with each Chief of Party and meets regularly with MOH counterparts. Combined meetings of all chiefs of party with the project officer were much less frequent, and the Evaluation Team noted some frustration among contractors for not being fully informed on all aspects of the CRHP. The Evaluation Team believes that overall management of the project by USAID could be improved, especially by providing more specific direction to contractors. Currently contractor responsibilities are fragmented across project components and lack coordination that can only come from the Project Officer. One consequence is the limited utilization by the contractors of the experiences and products from one part of the project to another, or the lack of cross-fertilization. The best example of the lack of cross-fertilization has occurred with the development of information systems for the HIO, leaders of the CCO stated that they were not aware of what was happening at the HIO and how it might be applied to the CCO.

There appears to be a need for the USAID Project Officer to increase coordination of development, implementation, and institutionalization of the work done by the three USAID principle contractors. Coordination could be accomplished through regularly-scheduled meetings of the Project Officer and all Chiefs of Party of the principle contracts while continuing the separate weekly meetings between the Project Officer and each Chief of Party. The USAID Contracting Officer should attend these meetings at least once a month.

c Contractor Accountability

The two main documents for tracking contractor accountability are the statement of work in the contract and the annual implementation plans. The former may be rewritten from time to time to reflect changes in contractor activities. The latter is written annually but with quarterly updates. The Evaluation Team is concerned about how well this process is working to provide adequate accountability in general, and specifically with respect to the URC contract. The URC contract is a performance-based contract but has less specificity in the statement of work than does the Maximus contract.

With respect to URC and contract accountability, the Evaluation Team questions whether the draft 1996 Annual Implementation Plan (January 31, 1996), which is proposed as an MOH document rather than a contractor document, will provide USAID with adequate control over contractor activities. The issue is one of the contractor's primary responsibility to USAID or to the Project Directorate.

A second issue regarding the draft implementation plan arose over URC's efforts to start up activities under Component Two—a component not directly specified in the contract scope of work. Because a list of the specific projects that are being planned was not available for the Team to review, it was not possible to assess the correspondence between proposed work and the scope of work. It is, however, the sense of the Evaluation Team that the URC Statement of Work should be rewritten at the same time that the 1996 Annual Implementation Plan is prepared to ensure a closer correspondence between the contract and planned work. The Team also recommends that the URC Statement of Work be reviewed and revised at least annually, or more frequently if necessary, to ensure that changes in work, undertaken to reflect changing circumstances and conditions, are adequately defined in the contract.

Finally, there is a concern that the draft implementation plan as it is currently written appears to consolidate authority for policy direction and management of all project components of the CRHP with the Project Director. This consolidation, particularly as illustrated in the organization chart in the implementation plan (p. 13) appears to be a reversal of previous efforts on the part of USAID to clarify and confine the role of the Project Director to matters concerning Component One.

Lastly, contractor accountability also requires that the Project Officer provide timely inspection, feedback, and acceptance of deliverables. Work performed under the CCC contract was not only misdirected and inappropriate in some cases, it was also poorly done and relatively useless in other cases. A number of deliverables appeared to be mainly copies of documents from U.S. professional organizations.

IV. General Project Conclusions

A GENERAL

- 1 There is growing, if not widespread, awareness and support for health reform within the MOH and at the highest levels of government
- 2 Progress over the past seven years has been uneven and achievements have fallen short of expectations. The project continues to be constrained by an unintegrated design, a burdensome array of deliverables, fragmented technical assistance, and a disjointed management structure
- 3 Despite problems listed above, the CRHP has made several notable achievements. The values of decentralized decision making have become more clearly understood within the MOH, and experience has been gained in building institutional capacity through strengthening management and improving the quality of medical services provided
- 4 Working management information systems have been developed at HIO that have potential application throughout the health system
- 5 Even taking into account past weaknesses in implementation of the CRHP, during its remaining 30 months the project can contribute significantly to system-wide health care reform in Egypt if its efforts and resources are refocused on the following achievable objectives
 - a Documenting a simplified model of cost recovery that emphasizes quality improvements and management strengthening
 - b Applying the MIS technology and training capacities developed for HIO to a broader array of MOH facilities, HIO-contract facilities, and CCO facilities
 - c Developing the organizational and managerial capacity of HIO and CCO to apply systems improvements in maximizing their organizational potentials and clarifying their roles as major players in Egypt's health system
 - d Building a sustainable capacity within the MOH for directing health system reform by creating a forum for discussing major issues of health policy, such as financing alternatives, managed care, capitated payments and insurance, targeting governmental subsidies, and the role of the private sector

B COMPONENT ONE

- 1 The Cost Recovery Model, as currently defined, is not viable and should be simplified. Several factors cast doubt that the model can, or should be, widely replicated. It is poorly defined and overly complex, the capital needed for major facility renovations and equipment purchases is not readily available, a greater emphasis on quality management is needed if substantive improvements are to occur, and a streamlined, less technology-intensive, approach to introducing managerial improvements is needed if the effort is to be sustained with local expertise after the CRHP ends.
- 2 Phase A has not given medical quality assurance (MQA) sufficient emphasis. Medical and clinical services are the product of health care facilities. The existing model addresses the product through improving the performance of nurses, infection control, renovating and equipping facilities, and medical quality assurance. However, establishing a proficient MQA program has received less emphasis and a lower level of effort than the other elements. MQA has been initiated in only one of the Phase A facilities.
- 3 To a large extent, Phase A has failed to achieve its objectives. Renovations and equipment have been delayed, the modules have been too numerous and complex to be fully implemented in any of the five pilot facilities, there has been little sharing of experience from one locale to another, implementation methodologies have been poorly documented, and only a couple of pilot facilities have shown even a marginal increase in revenues. Still, much has been learned in Phase A that can be applied now in redefining the Cost Recovery Model in Phase B.
- 4 Technical assistance has been implemented institution-by-institution with little coordination. There has been minimal interchange among cost recovery facilities and little progressive learning. All five pilot facilities have experienced different and incomplete implementation of cost recovery elements. Equipment purchases appear to have been made on the basis of "wish" lists prepared by directors of each facility, rather than based on strategic business and utilization plans.

C COMPONENT TWO

- 1 Information technology and training resources represent about 40% of the entire CRHP budget, supporting software development by three separate groups with a fourth contract imminent. The HIO/Maximus effort provides the most robust and complete facility management system of those developed to date and could be adapted for use at the MOH and the CCO. HIO has already institutionalized training in MIS operations.
- 2 HIO is already a major player in Egypt's health care system and is likely to become an even larger player in the near future. HIO now insures more than 40% of the Egyptian

population and discussions are now underway in the People's Assembly to add roughly eight million children under age five

D COMPONENT THREE

- 1 The importance of the CGC's role in expansion of private sector delivery of health care is uncertain. Much of the analysis needed to determine if and how the private sector should be expanded is not available.
- 2 The transition to managed care is only beginning in Egypt and is not widely understood by policy makers. CRHP can play an important role in building the capacity for transition to managed care.
- 3 The establishment of an HMO at the SCU-FOM is not likely to be completed by the PACD. The SCU-FOM faculty has only a limited understanding and capacity to undertake this process. The university's level of commitment has fluctuated, competition from other providers of health care has expanded since the HMO concept was first developed, and there is continuing confusion over the roles of the SCU-FOM, the group practice, and an HMO.
- 4 Expansion of the Medical Syndicate (MS) health insurance plan is neither feasible nor desirable under the CRHP. It is doubtful that the program can be expanded and remain financially viable. The MS has incorporated a number of managed care concepts into its plans and is clearly a valuable source of experience and information. Additionally, as the professional organization of physicians, the MS will be a powerful group in any discussions of health sector reform.

E PROJECT MANAGEMENT

- 1 Contractor responsibilities are fragmented across project components and lack coordinated direction from the Project Officer. Responsibilities and authorities of the Project Officer, PD Director, and contractor chiefs of party regarding development, implementation, and institutionalization of the CRHP, need clarification.

V. General Project Recommendations

A GENERAL

- 1 The CRHP should continue. During the remaining 30 months, the project can build on its accomplishments by simplifying the Cost Recovery Model, strengthening HIO and CCO capacities, and enriching the dialogue on policy issues and financing alternatives
- 2 To achieve greater integration among all project components, project management should emphasize cross-component communication and coordination

B COMPONENT ONE

- 1 Phase B should proceed but its objectives should be redefined so the Cost Recovery Model is more relevant to system-wide reform and more easily adapted to a broader array of MOH, HIO and CCO facilities. Phase B offers the opportunity for a fresh start, applying the lessons learned and experience gained in the Phase A facilities. The objective of Phase B should be to document and test a more viable model of institutional strengthening that can be adapted to other facilities using local resources and expertise. This revised model should be applied and tested in a wider array of pilot facilities that are more representative of Egypt's public health facilities by including HIO, HIO-contract, and CCO institutions, as well as MOH institutions. The minimum requirements for facilities selected for Phase B should be local need and the following:
 - a The staff demonstrates commitment to cost recovery, cost containment and efficient financial management, a competent MIS, MQA, and effective management
 - b Be an HIO facility or HIO contract facility
- 2 Technical assistance should focus on developing the capacity of Egyptians to implement the Cost Recovery Model
- 3 In a simplified Cost Recovery Model, greater emphasis must be placed on medical quality assurance

C. COMPONENT TWO

- 1 HIO's information technology and training should be leveraged to CCO and MOH facilities. This can be done more quickly and at less cost than by supporting the development of separate systems which share many common features. USAID should

terminate its planned procurement of a separate contract to develop a “state-of-the-art” MIS for CCO. Support to CCO should be redirected to adapting HIO information technologies and developing CCO’s managerial capacities, CCO staff should be offered the opportunity to participate in the organizational, financial, and quality management training already proposed for MOH and HIO facilities.

2. USAID should support the GOE in defining the future roles of the MOH, HIO, CCO, and other public and private health insurance providers in clarifying their roles in the changing Egyptian health care system. The recent arrival of the URC long-term advisor on social financing is a welcome addition to the TA team. CRHP should further expand its assistance in planning and policy development by commissioning special studies from the DDM project and by making use of information beginning to come from the HIO’s MIS. This may require extension of resources and activities originally targeted for Components One and Three. USAID and the contractors should work together to integrate workplans for the coming year to facilitate the GOE policy dialogue on managed care.

D COMPONENT THREE

1. CRHP resources should be used to assess the current role of the private sector and its potential role for delivering health care as the health sector continues to move toward reform. URC should build upon previous DDM work and collaborate closely with DDM in completing further studies which should include an examination of individual private providers, hospitals, and pharmacists. Studies might include an assessment of the need for, and sources of credit among private providers, potential MOH and USAID leverage in influencing the role and growth of the private sector, current success of the CGC in influencing private sector health investments, and how the CGC might play a role in private sector health development.
2. Technical assistance should be directed to improving the understanding of managed care concepts and practices. This effort should be conducted collaboratively by URC, Maximus and DDM staff. Every effort should be made to utilize the information and technical capacities available at the HIO, CCO, and Medical Syndicate.
3. TA provided to the SCU-FOM for development of an HMO should be limited to technical capacity building and information dissemination. Until the university demonstrates its commitment and obtains necessary legal status for the HMO, URC should not expand its currently limited TA. The goal should be to develop a sustainable capacity within the SCU-FOM to create and manage the HMO. No TA or funding should be provided for development of additional software or for hiring university/HMO personnel.
4. The MS should be encouraged to share its experience relating to health insurance and managed care through seminars, conferences, training programs, and the provision of

consulting services. In return, URC should assist the MS to improve its system by providing access to management training, software, and other materials produced for the HIO, CCO and MOH. Given the availability of software for the MIS through the HIO, no TA or other support should be provided for development of software.

E PROJECT MANAGEMENT

- 1 The roles, relationships, and authorities of the Project Officer, the Project Director, and the contractor Chiefs of Party should be clarified. Coordination could be enhanced through regular meetings of the Project Officer and the contractor Chiefs of Party, with the USAID Contracting Officer attending some meetings on a regular schedule.
- 2 Sustainability and capacity building should be stressed. Little time remains in the project in which to develop the Egyptian expertise needed to sustain and advance health care system reforms. A forum should be created where representatives of the MOH, HIO, CCO, CRHP, and other public and private health institutions can meet to study and discuss issues of health policy, financing, and restructuring, and their relevance to Egypt. The goal should be to develop an understanding of health policy issues and reforms at national, regional, and institutional levels.

Annex I

Evaluation Scope of Work

EVALUATION SCOPE OF WORK

I ACTIVITY TO BE EVALUATED

The activity to be evaluated is the ten-year, as amended, Cost Recovery Programs for Health Project (CRHP), No 263-0170. The CRHP, signed in September 1988, is an umbrella project providing assistance to a number of public, parastatal, and private organizations under its three principal components. The grant, funded at a life-of-project (LOP) funding level of \$78.5 million, supports a wide range of activities (technical assistance, bio-medical equipment/commodities, renovation, training, research and studies and related local costs) designed to broaden and diversify approaches for financing personal health services in Egypt.

II PURPOSE OF THE EVALUATION

The purpose of the midterm evaluation of the Cost Recovery Programs for Health Project (CRHP) is to assess the continuing validity of technical, administrative, social, cultural, and economic assumptions made in the project design, as revised during the preparation of the Project Paper supplement, and to review progress to date. Particular attention should be focused on the phased performance design which spells out specific objectives for use in reaching decisions concerning continued next phase funding or design modifications. The evaluation will also identify constraints to the achievement of project benchmarks/indicators and support development of practical solutions to persistent problems affecting the pace of project implementation. Finally, the evaluation will review the effectiveness of assistance provided under the numerous project funded contracts and agreements in supporting implementation of activities under the three project components.

III BACKGROUND

A - Project Components

In September 1988, USAID/Cairo and the Egyptian Ministry of Health signed the \$95 million, eight-year Cost Recovery for Health Project (CRHP). The original Project design was collaboratively undertaken by USAID and the MOH between 1986 and 1988. The project goal, as stated in the original Project Paper, was "to improve the health of the Egyptian people by enhancing the quality, availability, sustainability, and accessibility of health services." While the project purpose was "to establish a sound financial basis for the health sector through cost recovery systems."

Component One As originally designed, this component provided assistance to implement policy changes and develop necessary institutional systems to convert 40 MOH hospitals and ten polyclinics to user-fee/cost recovery systems. A Project Directorate (PD) was given the mandate, the technical assistance and the managerial personnel to develop and implement the conversion planning and implementation process for the designated facilities. The Project Paper (PP) projected that by the Project Assistance Completion date (PACD), then set at September 30,

1996, each facility should be generating 60% of operating costs and 80% of these facilities would be well on the way toward achieving self sufficiency

Component Two The Egyptian Health Insurance Organization (HIO) and Curative Care Organization (CCO) already operate on a cost recovery basis. This component originally allocated an estimated \$10 million to improve management practices and operational efficiency in these two organizations, through the provision of technical assistance, training and computer equipment for design and implementation of management information systems (MIS)

Component Three This component called for the provision of assistance to promote expansion of the private health care sector by 1) Increased access to credit for private practitioners. The project will provide funds for capitalization of a guarantee fund for loans provided by banks to private health practitioners. The Credit Guarantee Corporation (CGC) manages this private provider guarantee program,

2) Development of prepaid group practices

3) Improved practice management for private physicians

It was originally envisioned that approximately 14,000 physicians would be adequately capitalized in private, group or prepaid practices, and that this component would support interested groups in developing approximately 30 prepaid health care practices. Also, 20 operations research activities were scheduled to be conducted in support of the design and implementation of prepaid health systems and at least 4,800 health care providers were projected to be trained in improved management and financial practices to operate cost-effective private practices

B - Project Initiation Delays

Due to repetitive turn over of MOH Project Executive Directors (four in less than four years) and frequent reassignments of MOH oversight personnel, significant delays were experienced in project start up. These delays were further compounded by major differences in the perceptions of MOH and USAID officials concerning both the scope and definition of a cost recovery facility and the implementation steps required to get there. Other issues began to surface after the initiation of the project, particularly a growing recognition that a "realistic" work plan did not exist. Furthermore, it became clear that the original PP did not clearly define the objectives (subpurposes) of the three components and the budget for component one did not accurately estimate the magnitude and costs of renovation and equipment. Finally, planned assistance to the HIO and CCO, while proceeding relatively on schedule, was also determined to be seriously under budgeted.

At a Mission Portfolio Review held in February 1992, Mission management recommended that project staff organize an internal assessment of the project to 1) review progress to date at that point in time, 2) assess the weaknesses and strengths of each project component, and 3) re-examine the continuing validity of inputs and outputs detailed in the original PP. The assessment

report, dated April 2, 1992, documented the need for revision in several sections of the PP and recommended changes in the scope and funding of project activities. Therefore, it was determined that a Project Paper Supplement (PPS) would be necessary to document changes in the budget, revise outputs and objectives (sub-purposes) of the project, and clarify the complex systems and institutional changes required to achieve these objectives. Accordingly, a Project Paper Supplement was prepared and approved by the Mission in August 1993.

C - Revised Project Goal, Purpose, and Component Subpurposes

The Revised Project Goal To enhance the quality, sustainability, accessibility, and affordability of health services for the Egyptian people

The Revised Project Purpose To broaden and diversify approaches for financing personal health services

Component Subpurposes A subpurpose for each of the components has been identified which will feed into and support the achievement of the overall revised project purpose

- 1) **Component One** - Will seek to develop and test cost recovery systems in a minimum of five pilot MOH facilities as a model for country-wide application. In the DOP/MOH, a system will be established to track public sector curative and preventive health expenditures
- 2) **Component Two** - Will seek to improve the efficiency, utilization, and management practices of two organizations currently using cost recovery mechanisms: HIO and CCO
- 3) **Component Three** - Will seek to expand private sector financing of individual and group practices and develop alternative prepaid and managed care models

IV SCOPE OF WORK

The contractor, under the USAID/W, Health Technical Services Project, will field a five-person evaluation team for a five week period during January-February 1996 to evaluate progress in achievement of the project's objectives, as revised under the August, 1993 PP Supplement, identify any strengths and weaknesses in project implementation, identify any major institutional and/or policy changes which would have implications for project design, and make recommendations concerning project revision or amendment. In addition to reviewing the progress realized to date under each of the three project components, the evaluators will address the following more general issues:

- * The August 1993 PP Supplement significantly reduced the magnitude of end of project status (EOPS) outcomes under Components One and Three. Given the continuing delays experienced in project implementation and contracting, is it still realistic to assume the achievement of these EOPS or were project design staff overly conservative in their estimates, and should more ambitious EOPS targets be set?

* Mission strategy in both the health and family planning sectors calls for increased targeting of assistance resources to underserved governorates in Upper Egypt. Should similar efforts be made in programming the remaining resources under the CRHP?

* Life of project (LOP) funding for the project was significantly reduced under the PP Supplement, resulting in an extremely skewed technical assistance (TA) to local cost ratio. Given the continuing delays in contracting and mobilizing these TA resources following the approval of the PP Supplement and the high technology transfer and institutional strengthening nature of the planned assistance, are currently programmed resources, both TA and local costs, adequate to achieve the more limited objectives called for in the PP Supplement?

* Given the highly fragmented approach adopted in contracting required TA support and the ineffectiveness of the near dormant project steering committee, to what extent has cross-component coordination been assured and what corrective action might be undertaken to improve this process?

* Is the project, as conceived, likely to affect financing of curative care? Is there a more cost-effective, acceptable way to achieve the project goal and purpose?

* In general, how have project inputs contributed to improvements, both actual and perceived, in the overall quality of patient care services in the pilot facilities, CCO, HIO and the Egyptian health sector as a whole?

While addressing the above concerns, the Evaluation Team shall review the implementation status and progress of each project component and related sub-activities/programs of the concerned implementing agencies. The Team will respond to the following questions for each of these implementing agencies. In the final report, to be prepared by the contractor, the evaluators shall clearly provide their findings regarding each of the general questions listed above, as well as the more specific questions relating to the specific implementing agencies as follows, along with their conclusions and recommendations.

A Implementing Agencies/Assistance Activities

COMPONENT ONE

1) **Ministry of Health (MOH), Project Directorate (PD)** The MOH has established a Project Directorate and charged this unit with overall responsibility for the coordination of analysis, system development, implementation and training support associated with the conversion of MOH facilities to cost recovery. The PD is also charged with assuring coordination and collaboration between the various implementing agencies, the sharing of expertise, and the dissemination of information and implementation materials developed under the project.

The PD has received technical assistance from a number of Mission-direct and centrally-funded contracts, including a) Abt Associates, under the Health Financing & Sustainability (HFS) Project, b) the Academy for Educational Development, under the HEALTHCOM Project, c) Cambridge Consulting Corporation (CCC), under a mission-direct contract, d) University Research Corporation, under the Quality Assurance Project (QAP), and e) a number of Mission purchase orders and PSCs. Also, a Mission direct Prime Contract was recently awarded to URC to provide a wide range of technical assistance support to each of the three project components.

The evaluators shall address the following questions in reviewing progress of the MOH/PD and pilot hospitals/polyclinics in achieving Component One objectives:

- * Does legislation issued governing implementation of cost recovery in the pilot facilities provide adequate delegations, authority, and flexibility to enable effective implementation of cost recovery programs in these facilities?
- * Has the MOH provided, in adequate quantities, the agreed upon staff, facilities, and other counterpart resources to enable effective management and implementation of the project?
- * Has the MOH effectively communicated the objectives of the project to staff within the PD and other concerned MOH departments at the central level, governorate health department and pilot facilities personnel, and the communities served?
- * Have the required analyses, management and clinical operation system development and implementation, and related training activities comprising the proposed cost recovery (CR) facility conversion model been carried out in the pilot facilities?
- * Given the composition of the CR facility conversion model, do the indicators for success, identified in the Project Paper, as amended, continue to be valid and effective measures against which to monitor and assess pilot facility progress in implementing cost recovery and overall progress toward achievement of facility self sufficiency? What alternative or additional measure might the USAID and the MOH wish to consider?
- * Have phase (A) pilot facilities progressed in implementing cost recovery systems in their facilities and achieving identified success criteria?
- * Have project-financed facility renovation, biomedical equipment, and start-up funding support contributed to successful implementation of cost recovery in the pilot facilities?
- * Has the Project Directorate (PD) demonstrated the ability to identify requirements and effectively coordinate the programming and delivery of the necessary assistance to the pilot facilities?
- * Have the technical assistance needs of the MOH/PD and the pilot facilities been effectively addressed?

* Has assistance provided under the project enhanced the capacity of the PD, and/or other concerned MOH departments to carry out required analyses and modify/design/ implement management and related clinical operating systems to replicate CR facility conversion activities in other MOH facilities?

* What is the likelihood that the MOH will be in a position to promote/replicate the CR process in the future, especially after the CRHP ends?

* What is the actual and potential effect of CR on the utilization of MOH facilities by the poorer members of society?

2) Directorate of Planning (DOP), MOH The Directorate of Planning is charged with carrying out a series of analyses and data collection activities that will both assist in establishing baseline data in key project monitoring areas and enable preparation of necessary briefing materials and decision memoranda to support adoption of policy reform measures required for successful implementation of planned cost recovery activities. The DOP is implementing these activities in collaboration with Harvard University under an add-on to the Data for Decision Making (DDM) Project. Evaluators should address the following questions:

* To what extent have ongoing data collection and analysis activities, and/or preliminary findings emanating from these efforts, assisted in clarifying MOH policy and institutional reform priorities and built increased awareness of and support for action on these priorities both within and outside the MOH?

* Have required baseline data sets for public and private sector allocations, and expenditures for health care been established for key EOPS outcome measures, plans, or systems, which were developed to enable assessment of project impact on these data?

* Have DOP staff been trained and systems/methodologies developed to enable the MOH, in the absence of outside technical assistance, to periodically update and track changes in these data sets?

COMPONENT TWO

1) Health Insurance Organization (HIO) The Health Insurance Organization is the primary Egyptian agency charged with the management of GOE social finance for health care services. The current beneficiary groups include Egyptian employees, pensioners, and retirees, widowers, and school-age children, representing approximately 24 million potential enrollees. HIO is currently attempting to automate and improve its management and reporting systems, and to improve both the quality and financial viability of health services provided to covered beneficiaries. The project is providing ongoing technical assistance to HIO, initially in collaboration with the Cambridge Consulting Corporation (CCC) and currently with MAXIMUS, and to a lesser extent, URC and Harvard University. Evaluators shall address the following questions:

- * How appropriate are the software applications modules that Maximus is developing to the needs of the HIO, considering recent changes in HIO's beneficiary population, size and utilization of contracted services? Are there specific applications not currently envisioned of greater managerial value/priority?
- * How well qualified is the HIO to review the technical aspects of Maximus' system and applications developments?
- * How well prepared will the HIO be to assume financial responsibility for the continuing support requirements of the MIS, particularly in the areas of computer system supplies, telecommunications costs, and equipment maintenance?
- * How well prepared will the HIO be to utilize the information generated for decision making by the proposed MIS?
- * How technically well prepared will the HIO be to sustain and continue the development, expansion, and functioning of the MIS when Maximus concludes its work?
- * Is the pace of development and roll out of the system adequate to have a fully functioning MIS in place at the end of the Maximus contract?
- * Is the HIO adequately fulfilling its responsibilities to enable Maximus to function in an efficient manner?

2) Cairo Care Organization (CCO) The Cairo Curative Care Organization is a 12 hospital parastatal health service delivery organization located in the Greater Cairo area. The CCO operates on a cost recovery basis and has focused considerable attention on improving management and service quality in each of its facilities. The project provides support to further CCO efforts in this regard through the installation of a hospital management information system (HMIS) in the CCO headquarters and three pilot hospitals. To date, support has been provided under a host country contract with Birch & Davis Inc (BDI), and its Egyptian affiliate, Data Processing Services (DPS). This support has focussed on completion of a series of pre-HMIS implementation activities. As of December 1995, procurement of the Mission direct TA contract for the implementation of the CCO HMIS is still underway.

- * To what extent has pre-HMIS implementation support provided to date to the CCO increased the receptivity and capacity of CCO staff to automated management systems, in general, and the proposed HMIS in particular?
- * Do the prototype management systems developed by the CCO have applicability for MOH, HIO, or other implementing agency facilities of similar function? How might these systems be more effectively exploited?
- * Has preimplementation support been effective in strengthening CCO in-house MIS department and staff capabilities?

* How effective was CCO training support to the MOH in the area of nursing care? Are there other areas where CCO expertise and training capacity could be exploited to enhance capacity of PD or pilot facility staff?

COMPONENT THREE

1) **Credit Guarantee Corporation (CGC)** The CGC Physician Provider Loan Program was capitalized in 1991 with funding provided under the project. Over the period of 1991-93, CGC received technical assistance for the implementation of this program from a locally-contracted economist, Dr. Medhat Hassanein. A brief assessment of the program was conducted in January 1995, by John Porges under a buy-in to the FSDP II contract with KPMG Peat Marwick.

2) **Suez Canal University (SCU)** The Suez Canal University Medical School curriculum focuses on family practice. The Faculty of Medicine at SCU also operates one of the most successful group practices in Egypt. Given this success and their general "avant garde" policy, SCU has requested USAID support to establish an HMO. The project has to date financed support, under the Mission direct contract with CCC, for a feasibility study of the proposed HMO. URC will provide SCU with required ongoing support for this effort under the recently awarded prime contract.

3) **Medical Syndicate (MS)** - The Medical Syndicate Health Insurance Plan is the most successful private insurance program in Egypt. The MS is currently considering plans to expand this plan to other professional associations or groups. The Mission has provided support for a feasibility study of this proposal through a TDY by a USAID officer and a PSC consultant. URC will provide further TA in this area.

* Are current EOPS targets for private sector service expansion and new service delivery models achievable, given earlier delays in project implementation and contracting of TA resources?

* To what extent have CGC loan guarantees issued to date contributed to the achievement of these EOPS targets?

* How successful has the program been in attracting female loan recipients? How can performance in this area be improved?

* Has the availability of the CGC guarantee program resulted in increased willingness of commercial banks to extend credit to health providers?

* Are the recently negotiated performance-based provisions of the CGC agreement likely to increase the scope, number, and appropriateness of CGC guarantees?

* Are the activities envisioned to date likely to produce the type of replicable systems/models that will create the desired multiplier effect on the expansion of cost-effective private sector service provider and financing mechanisms? If not, what options

84

are available to the project to address this problem, given the constraints of time (PACD) and resources?

V METHODS AND PROCEDURES

The evaluation will be conducted in Cairo, following completion of limited preparation work and team planning activities in Washington. The total projected time for the team leader is 24 days in Cairo and ten working days pre- and post-assignment in Washington, D C. The actual number of days programmed for the remaining team members will be based on their assigned roles and responsibilities and actual availability.

The first phase will consist of a review of documents and a three-day team planning meeting in Washington. A list of crucial materials is included as Attachment 3 to this SOW. The team will be briefed by the USAID Project team in Cairo upon arrival. The briefing will focus on "component and implementing agency profiles," which include information on the purpose and goal of the subcomponents, inputs and outputs, progress to date, and implementation issues. **Within the first week in country, the team will submit a workplan which describes the roles and responsibilities of each team member, outlines the methodology to be used, and includes a detailed outline and suggested table of contents for the evaluation report.**

During the in-country phase of the evaluation, for which the entire team will be present for the bulk of the time, the team will conduct site visits and hold discussions with key USAID staff, GOE counterparts and the private sector, data analysis, and complete drafting of the preliminary report.

The team will be authorized a six-day work week during this period. During this phase the evaluation team shall

- A Complete the review and analysis of the remaining relevant documents listed in Attachment 3
- B Conduct interviews with key GOE, private sector, and USAID officials including, but not limited to officials from 1) the Health Insurance Organization (HIO), 2) the Ministry of Health (MOH), 3) the Curative Care Organization (CCO), 4) pilot facilities and Governorate level Health Directorates, 5) the Medical Syndicate and Suez Canal University, and 6) the USAID Project team
- C Make field trips to project sites in Alexandria, Ismailia, and implementing agency sites in the Cairo area. The schedule and sequencing of these visits shall be decided in conjunction with USAID and GOE officials after the team has arrived in Egypt
- D Prepare an evaluation report based on the analysis of information obtained through tasks A-C above

85

At the end of the fourth week, the evaluation team will present their major findings and recommendations to USAID. The evaluation team shall prepare and distribute two days prior to the debriefing, a matrix of summarizing findings, conclusions, and recommendations. Prior to departure, the team shall submit to USAID 10 copies of the entire draft final report which shall incorporate comments from the debriefing. Within 30 days, USAID will review the draft and send comments to the contractor. **Within six weeks after receiving USAID comments, the contractor shall prepare the final report and forward 30 copies to the Director of the Office of Health.**

The contractor shall advise USAID if they plan to bring in computers or related electronic equipment at least two weeks in advance of arrival at post, as advance approval must be obtained from the GOE to import these items.

VI TEAM COMPOSITION

The team will consist of five external evaluators with the following expertise:

A) Team Leader - a senior Health Management Specialist with strong background in health program management and, in particular, in developing countries. The team leader will be responsible for supervising the other team members and will specifically focus on the coordination, project management, marketing and information dissemination tasks of the evaluation.

B) Senior Health Policy/Planning Advisor - This team member will have at least five years health care experience with expertise in health policy planning, formulation, analysis and reform work, and related health financing consulting in international settings.

C) MIS Specialist - This team member will be a senior systems analyst and will have at least five years of hospital MIS experience with expertise in assessment, design, implementation, and evaluation of MIS systems.

D) Health Hospital/Health Systems Management Specialist - Will be a Health and/or Hospital manager with at least five years of experience in health systems management, health care financing, insurance plan development, and/or management/financing of social insurance programs.

E) Clinical Care Specialist - This team member will be a physician with extensive experience in the development and/or management of hospital quality assurance, medical/professional standards review, and related clinical care operating systems.

VII FUNDING

Consultants participating in the evaluation will be funded from Project 263-0170 funds

VIII REPORTING REQUIREMENTS

Upon the team's arrival in country, USAID Office of Health staff and the USAID Evaluation Officer will brief the team on specific reporting requirements. The format of the draft and final written report shall contain the following sections

- Evaluation Summary (3 pp single-spaced)
- Statement of conclusions and recommendations keyed to the questions in the scope of work
- Body of the report which should provide findings and analysis on which the conclusions and recommendations are based
- Appendices
 - (a) Evaluation SOW
 - (b) Overall project and subproject logical frameworks, with a brief summary of status
 - (c) Description of methodology
 - (d) Bibliography of documents consulted
 - (e) Persons interviewed
 - (f) Other details on special topics

Annex 2

Logical Framework

A. LOGICAL FRAMEWORK

NARRATIVE SUMMARY	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><u>PROJECT GOAL</u></p> <p>To enhance the quality sustainability accessibility and affordability of health services for the Egyptian people</p>	<p><u>MEASURES OF ACHIEVEMENT</u></p> <ul style="list-style-type: none"> ♦Progressive increase in life expectancy ♦Decrease in infant and under-five mortality ♦Increase in percentage of GOE Health Sector budget allocated for preventive public health care activities 	<ul style="list-style-type: none"> ♦GOE statistics 	<ul style="list-style-type: none"> ♦Disease specific technologies remain effective ♦Cost recovery remains a top GOE strategy ♦MOH will shift priorities to preventive public health activities ♦Current economic growth and income distribution maintained ♦Role of the private sector in the Egyptian economy will continue to expand ♦Population programs will receive top level support ♦National political and health sector stability maintained
<p><u>PROJECT PURPOSE</u></p> <p>To broaden and diversify approaches for financing personal health services in Egypt</p> <p>COMPONENT ONE SUB PURPOSE To develop and test cost recovery systems in MOH facilities as a model for country wide application</p> <p>COMPONENT TWO SUB PURPOSE To improve the management efficiency and utilization of existing cost recovery organizations</p> <p>COMPONENT THREE SUB PURPOSE To expand private sector financing of individual group and pre paid care practices</p>	<p><u>END OF PROJECT STATUS</u></p> <ul style="list-style-type: none"> ♦Increased proportion of total health care expenditures financed by private sector payments ♦Facilities will be covering 100% of non personnel operating costs 80% of equipment depreciation and 30% of building depreciation from private sector payments ♦Improved cost effective services being provided to 20 million people through HIO and CCO facilities ♦100 000 additional people using private sector prepaid health care services 	<ul style="list-style-type: none"> ♦Project reports ♦GOE statistics ♦GOE financial records ♦Cost Recovery facility reports ♦HIO and CCO financial records ♦HIO and CCO MIS reports ♦CGC reports ♦Project reports ♦Project evaluation 	<ul style="list-style-type: none"> ♦Egyptians will continue to utilize cost recovery GOE facilities for quality curative/health care ♦Private sector health care providers can not fully meet health care needs ♦Egyptians will progressively use private health sector as source of quality care ♦Reasonable profit possibilities, including managed health care schemes exist for private health care providers within the economy

ANNEX A
LOGICAL FRAMEWORK

NARRATIVE SUMMARY	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><u>OUTPUTS</u></p> <p>COMPONENT ONE</p> <ul style="list-style-type: none"> ♦ Demonstration of successful cost recovery operations ♦ Technical and management capability in place within the MOH to replicate cost recovery model to other health facilities ♦ A system established in the MOH Planning Directorate to track public sector curative and preventive health expenditures <p>COMPONENT TWO</p> <ul style="list-style-type: none"> ♦ MISs installed and being utilized at HIO and CCO for improved management administrative, financial and marketing ♦ Cost containment and system efficiency leading to expanded coverage by both HIO and CCO <p>COMPONENT THREE</p> <ul style="list-style-type: none"> ♦ An improved commercial banking system to provide financial services to health care providers ♦ Increased number of new or expanding private sector health care providers particularly in rural areas and secondary cities ♦ Viability of new or expanded practices ♦ New private managed health care systems (i.e. HMO like schemes) 	<p><u>MAGNITUDE OF OUTPUTS</u></p> <ul style="list-style-type: none"> ♦ A minimum of 4 MOH hospitals and 1 MOH polyclinic converted to cost recovery operations ♦ CRHP Directorate staffed with MOH personnel experienced in cost recovery ♦ Information available to MOH decision makers ♦ MISs installed reports being generated and utilized for decision making ♦ 25 % increase in utilization of HIO and CCO facilities ♦ 10 commercial banks actively participating ♦ 5 000 loans to new or expanding private sector health care providers ♦ Indicated by a default rate of no more than 10% ♦ 2 new systems 	<ul style="list-style-type: none"> ♦ GOE records ♦ Site visit reports ♦ Project evaluation ♦ HIO & CCO records ♦ Site visit reports ♦ Project evaluation ♦ CGC records ♦ Site visit reports ♦ Project evaluation ♦ Organization records 	<ul style="list-style-type: none"> ♦ GOE issues necessary decrees to support cost recovery ♦ CRHP Directorate records ♦ Project evaluation ♦ HIO and CCO can retain trained personnel ♦ Commercial banking sector continues to serve health care providers ♦ Private physicians continue to be good credit risks ♦ GOE continues support of private sector

ANNEX A
LOGICAL FRAMEWORK

NARRATIVE SUMMARY	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<u>INPUT</u>	(\$000)	♦Financial disbursement records	♦GOE continues to support public and private health sector development ♦Technical assistance, training, equipment, and resource levels can improve effectiveness of the health sector ♦Inputs will be provided on a timely basis
COMPONENT ONE			
Technical Assistance	21 047		
Commodities	7 164		
Renovations	3,988		
Training	2 008		
Local Costs	2,506		
COMPONENT TWO			
Technical Assistance (w/commodities & training)	33,100		
Local Costs	1 808		
COMPONENT THREE	0		
Technical Assistance & Training	4 683		
Local Costs	428		
AUDIT/EVALUATION	821		
CONTINGENCY	947		
TOTAL	78 500		

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Project Title & Number: COST RECOVERY PROGRAMS FOR HEALTH No. 263-0170

<u>NARRATIVE SUMMARY</u>	<u>OBJECTIVELY VERIFIABLE INDICATORS</u>	<u>MEANS OF VERIFICATION</u>	<u>IMPORTANT ASSUMPTIONS</u>
<u>PROGRAM OR SECTOR GOAL TO WHICH PROJECT CONTRIBUTES</u>	<u>MEASURES OF GOAL ACHIEVEMENTS</u>		<u>ASSUMPTIONS FOR ACHIEVING GOAL TARGETS</u>
To improve the health of the Egyptian people.	<p>Progressive increase in life expectancy.</p> <p>Decrease in infant & under 5 mortality.</p>	GOE Statistical	<p>Disease specific technologies remain effective.</p> <p>Cost recovery will remain top GOF strategy.</p> <p>Current economic growth and income distribution maintained.</p> <p>Role of the private sector in the Egyptian economy will continue to expand.</p> <p>Population programs will receive top level support.</p> <p>National political and health sector stability maintained</p>

<u>PROJECT PURPOSE:</u>	<u>CONDITIONS THAT WILL INDICATE PURPOSE HAS BEEN ACHIEVED:</u> <u>END OF PROJECT STATUS</u>	<u>MEANS OF VERIFICATION</u>	<u>ASSUMPTIONS FOR ACHIEVING PURPOSE:</u>
To establish a rational financial basis for the health sector through cost recovery systems.	<p>80% of 50 cost recovery facilities achieve operating self-sufficiency.</p> <p>90% of project supported, private medical practices operating at a profit.</p>	<p>GOF financial records, facility reports.</p> <p>Bank loan repayment records.</p>	<p>Egyptians will continue to utilize cost recovery GOF facilities for quality curative/health care</p> <p>Private sector health care providers can not fully meet health care needs</p>

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(continued)

<u>PROJECT PURPOSE (continued)</u>	<u>CONDITIONS THAT WILL INDICATE PURPOSE HAS BEEN ACHIEVED. END OF PROJECT STATUS</u>	<u>MEANS OF VERIFICATION</u>	<u>ASSUMPTIONS FOR ACHIEVING PURPOSE</u>
	Improved, cost-effective services provided to 2.5 million people in HIO and CDO facilities	Financial records, ratios and MIS reports.	Egyptians will progressively use private health sector as source of quality care
	45,000 people using new prepaid health care services	CDE records, clinic reports, bank loan distributions and records.	Reasonable profit possibilities exist for private health care providers within the economy.

<u>OUTPUTS</u>	<u>MAGNITUDE OF OUTPUTS</u>	<u>MEANS OF VERIFICATION</u>	<u>ASSUMPTIONS FOR ACHIEVING OUTPUTS.</u>
CDE facilities converted to cost recovery operations.	40 hospitals, 3,500 beds 10 polyclinics	CDE records.	CDE continues to support cost recovery.
Improved commercial banking system to provide financial services to health care providers.	10 banks participating	Bank records	Commercial banking sector continues interest in serving small scale lenders.
Expanded number of private, prepaid health delivery mechanisms	5 private insurance schemes 25 HMO or HMO-like facilities	Bank records, clinic reports, CDE files.	CDE continues support of private sector.
Improved administrative and financial capabilities at CDOs and HIO thru MIS improvements.	4 complete MISs to include cost accounting, registration, patient information, inventory control, quality assessment	Records, site reports	HIO and CDO can retain trained personnel.
Increased number of private medical practices particularly in rural areas and secondary cities.	14,000 individual practices 25 group practices	Bank loan records; CDE reports	Private physicians continue to be good credit risks.

INPUTS	IMPLEMENTATION TARGET (Type & Quantity - \$000)	MEANS OF VERIFICATION	ASSUMPTIONS FOR PROVIDING INPUTS
1. Cost recovery conversions:	\$45,000		GCE continues to support public and private health sector development.
Technical Assistance: (\$10,000) Performance Disbursements: (35,000) (Equipment: (17,000) (Renovations: (18,000)			
2. Management Improvements to HTO and CCOs	10,000		
Technical Assistance: (3,639) Training: (1,500) Commodities/Equipment (3,800) Operations Research (1,061)		Designed technology training, equipment and resources levels can improve effectiveness of the health sector.	
3. Private Sector Credit	38,500		
Credit Fund (33,000) Technical Assistance: (3,800) Training: (1,500) Commodities: (200)			
4. Evaluation and Audit	1,500		
TOTAL:	<u>\$85,000</u>	Financial disbursement records	

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Annex 3

Contractor Matrix

CONTRACTOR MATRIX

	CONTRACTOR	AMOUNT COMMITTED /\$ AMOUNT DISBURSED/\$	CONTRACT PERIOD Begin/End	MAJOR RESPONSIBILITIES
1	CCC/HIO DIR/CONTRACT	\$2,568,724 2,568,724	10/31/89 07/31/94	Enhance the functional & technical performance of the computer syst, in Alex, re-tuning the database mgmt syst, software changes, clean-up of data problems to achieve data integrity Drafting the RFP for the Prime, and participate in evaluation and contract negotiations Evaluate manual SMIP & train HIO Physicians & nurses, and assist in HIO strategic planning process
2	M HASSANEIN/CGC DIR/CONTRACT	113, 522 113, 522	04/15/90 12/31/92	Senior Banking Advisor Assist CGC Board of Dirs, CGC management and participating banks to effectively implement the CRHP/guarantee program Define policy, undertake training and program promotion
3	ABT ASSOCIATES (BUY-IN) HF&SP	1,313,416 1,313,416	07/31/90 11/30/92	Short Term TA to assist MOH develop its PD and selected basic systs, tools & understanding of hlth care financing, CR systems and proj mgt Developed facility standards, conversion plans TA , Equipment, A&E, Tng, and Business plans Economic Analysis, developing cost info for use by the MOH and comparing pricing policies of CCO with MOH hosps Surveys included cost survey, plus household, patient, and alternative provider surveys in the Embaba area Assisted USAID in the redesign effort, undertaking the required analyses
4	BDI (Sub-Contractor) PDS HC CONTRACT FOR CCO	2,205,610 2,059,985	08/05/91 02/28/95	Develop RFP for Prime/CCO Develop RFP for Prime and assist in evaluation Design and Develop 2 application system and train system users Develop procedure manuals for financial and admin systems Train counterparts in evaluation mechanism, automated project accounting and aspects of administration and project mgt
5	AED (HEALTHCOM II) PARTNER PORTER/NOVELLI	765,433 532,171	02/21/92 01/15/95	Marketing Mgt in series of trng workshops - Marketing review & orientation - Strategic Planning & Marketing Plan - Develop a communication strategy - Design & evaluate communication & marketing programs - Assist in Survey Research activities

6	CCC/PD DIR/CONTRACT	6,010,117 5,841,790	11/01/92 07/31/95	CCC/PD TA includes equipment procurement, training needs assessment & implementation, hospital governance, administration & financial management, project planning, personnel mgt system MIS development Health care Social Finance Conference, MIS development and insurance plans This 8(A) TA bridges between Abt buy-In and the Prime TA
7	MAXIMUS Subcontractor) CHEMONIX ARAB SOFT PRIME HIO	16,021,740 10,499,178	01/21/93 01/20/98	Maximum Designing and implementing an automated MIS for HIO Deliver TA, training, computer, software & hardware including communications, and physical site preparation The detail design of modules, implementing applications, supervising the system development process, monitoring progress & systems performance, maintaining the system and transferring operational responsibility to HIO The preferred design utilized consists of branch centralization with a mini-computer located in each of the 8 branches connected via telecommunication facilities to the polyclinics A more recently added responsibility is the reengineering of the organizational structure of the HIO Headquarters
8	CHS (QUALITY ASSURANCE Project) ADD-ON	1,233,900 919,391 (Awaiting AOC Billing)	04/05/93 10/31/95	QA Assess current situation, develop purpose & vision for a QA Program - Develop a QA Plang and implementation timetable - Setting & communicating standards - Develop methods for Monitoring performance - Problem identification & solution - Training in QA basic & advanced skills and Q improvement activities - Capacity building thru ST, PT & T O T & facilitation - National Conference on QA
9	HARVARD UNIVERSITY DDM Project ADD-ON	1,870,593 <u>+ 441,495</u> 2,312,088 (Disburs - 0 -)	07/15/93 09/30/96	Harvard U DDM Proj - Collection & analysis of data essential for hlth sector planning & reform - institutional development & capacity building in the MOH/Director of Planning for data collection, analysis, timely dissemination for use by decision makers Specifically 1 National Hlth Accounts 2 Budget Tracking System 3 National Household Hlth & Provider Surveys 5 Cost Effectiveness Analysis for Priority Settings

10	URC Subcontractors BDI WHIC TEAM MISR PROJECT HOPE PRIME/MOH, and CGC SUEZ CANAL UNIVERSITY MEDICAL SYNDICATE	2,000,000 642,501	05/25/95 09/30/97	URC Mgt & Admin System in CR facilities, an Strengthen PD skills to plan, implement & evaluate CR conversion plans Explore alternative social financing systems, and Promote private sector initiatives MIS trg for all components Collaboration & Coordination , Information Dissemination
11	PSC RICHARD AINSWORTH CRHP Coordinator - Proj Funded(All Components)	702,588 + 7,897 (indir) 710,485 272,015 (Disbursed)	01/05/94 07/04/98	Directly responsible for HIO, CGC, and PD activities and coordinates overall CRHP activities, designs and assemble charts AIP guidelines and PIL requirements
12	FSN PSCs Non-Project Funded Dr Sameh El Gayar, FSN 12 Mona Bawab FSN 9 Sherry Labib FSN 6			
13	Non-PSCs Project Funded			
	Dr Nihal Hafez (PD/MOH & HIO)	63,739 32,165	07/16/91 07/14/96	MIS Specialist and Technical Deputy Director, prepares AIPs, documents for Quarterly Reviews, briefings and Steering Committee Meetings
	Mossad Iskandar (PD/MOH)	28,186 28,186	10/27/90 10/26/92	PD/Financial Analyst Manager
	Abdel Gawad Ali (PD/MOH)	14,052 14,052	10/27/90 10/26/90	Administrative Assistant to Project Director
	Malak Kamal (PD/MOH)	2,396 2,396	05/09/92 05/08/93	Administrative Assistant replacement
	Eng M Fawzy (PD/MOH)	39,530 8,190	07/24/95 07/23/97	Manages and supervises facility renovations activities under Component One

	Eng M Younis (HIO)	2,977 2,977	02/01/91 01/31/92	MIS Specialist
14	BOSTON UNIVERSITY MANAG TRAINING FOR (PD/MOH)	68,834 68,834	01/04/93 03/03/93	Training conducted in-country for PD and facility Directors and Deputy Directors
15	JOHN SNOW ADD-ON TRG INITIATIVES PROG for COMPONENT 3 Dpr/u Facilities	166, 502 25, 136	07/01/94 09/30/97	Two case studies on a Mosque Clinic and SCU Group Practice in Ismailia Governorate
16	KPMG P MARWICK FSOP II Project (John Porges) for CGC	24,522 20,803	01/23/95 04/30/95	Assess CGC leveraging mechanisms and management issues related to operating expenses
17	EXECUTIVE RESOUR ASSOC BUY-IN TO IRM/W CONTR	16,000 16,000	06/01/92 07/30/93	2 Strategic Planning Workshops in Info Tech (IT) for CCO and HIO to develop their objectives/goals, strategies and business planning
18	PURCHASE ORDERS			
a)	ROBERT EMREY	12,300 12,300	06/01/89 06/30/89	Develop MGT Standards Handbook Organize a Task Force to begin standards development Conduct Survey of Health Care MGT Standards using the PPRGS based on US practices
b)	ROBERT TAYLOR Firm Fixed Rate, P O Six Weeks	13,370 13,370	06/17/89 08/03/89	Organizational structure of PD, functional activities, job descriptions of key staff Strategic planning, MGT development and institutional assessment
c)	SUZAN TAYLOR Firm Fixed Rate, P O Six Weeks	12,331 12,331	08/03/89	Create and orient facilities selection task force Management standards (PPRG's) that are critical and manageable HIO and CCO assessment approach and base data required
d)	EDWARD RIZZO Firm Fixed Rate, P O Six Weeks	12,000 12,000	02/21/92 01/15/95	Draft RFP and develop S-T and L-T TA requirements for MGT/TA to component 1/MOH, to be in place by mid-1990

19	COMMODITIES/PROCUREMENT			
a)	AMERICAN OVERSEAS BOOK	3,861 3,861	04/12/90 11/30/90	Printed Materials for CCO
b)	CCO L/COM	50,469 50,469	03/31/92 06/30/92	Computer Equipment for CCO
c)	CCC/MOH CCC as PSA with BL/COM	5,982,732 5,982,732	04/16/93 05/31/95	Biomedical Equipment for Kafr El Dawar Polyclinic, Qantara Gharb Hospital, Shark El-Madina Hosp , May 15th Hosp , and Embaba Hospital
d)	Xerox for CCO	23,918 23,918	12/19/91 03/31/92	Xerox machine for CCOi
e)	COMPURENT & SERV CO for CCO L/COM	84,414 84,414	04/02/95 04/09/95	Computer Equipment for CCO
20	EVALUATION/AUDIT			
a)	HAZEM HASSAN	15,765 15,765	11/16/89 04/01/90	Financial Assessment of CRHP Implementing Agencies MOH, HIO, and CCO
b)	IQC with ENVIRONMENTAL QUALITY INTERNATIONAL EQI FOR CGC	5,641 5,641	07/01/90 09/10/90	Financial Assessment of CGC
c)	IQC with FARID MANSOUR	5,692 5,692	10/31/94 12/16/94	Financial Assessment of Medical Syndicate
d)	DELIVERY ORDER FOR TVT ASSOCIATES (HTSP)	156,906	01/04/96 04/19/96	Mid-Term External Evaluation of All CRHP Components
21	Cooperative Agreement With CCO	204,927 204,927	01/01/91 06/30/94	
TOTAL		42,519,418 31,633,489	BALANCE	10,885,929

Annex 4

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Annex 5

List of Persons Interviewed

List of Persons Interviewed

USAID/CAIRO

Joy Riggs Perla	Associate Director, Human Resources Development and Coordination (HRDC)
Mellen Tanamly	Chief, HRDC/H
Carl Abdou Rahmaan	CRHP Project Officer, HRDC/H
Dr Sameh El Gayar	CRHP Project Assistant, HRDC/H
Eng Hussein Sedki	Engineer, Office of Engineering
Richard Ainsworth	Personal Services Contractor, HRDC/H/CRHP
Donella Russell	Contracting Officer
Aziza Helmy	PDS/PS/Women in Development Officer
Iqbal Qazi	DR/ENG
Randall Parks	PDS/P Evaluation Officer
Francisco Zamora	HRDC/H
Eugene Rauch	PDS/PS
Mona Bawab	HRDC/H
Beatrice Beyer	PDS/P
Harry Proctor	DR/ENG
Iman Abdel Halim	PDS/P
Randa Helmi	PDS/P
Halem El Khoday	FM/FA

Alsalam Hospital, Cairo

Dr Gamil Setf	Hospital Director
Dr Ezzat Nessim Hanna	Vice Hospital Director

Cairo Curative Organization

Dr Mohamed Sharif	Chairman
Eng Ahmed Yehia	MIS Department, Heliopolis Hospital
Eng Inas Hendam	MIS Department, Nasr Hospital
Eng Faten Ramadan	MIS, Document Control Department
Dr Samir Fayad	Former Chairman, consultant to Minister of Health
Mr Mostafa	MIS Department, CCO Headquarters

Cairo Kidney Center

Prof Dr Rashad Barsoum	Chairman
Eng Mona Shenouda	Center Manager

CRHP Project Directorate

Dr Hassan El Kalla	Project Director and MOH Undersecretary for Minister's Affairs
Dr Mrs Afaf Osman	Deputy Director
Khaled Hashem	Manager, Finance & Accounting Department
Mrs Fawkia Ahmed	Manager, Nursing Department
Eng Eman El Aasar	Manager, MIS Department
Eng Mohamed Kassem	Manager, Biomedical Department
Dr Magdi El Safty	Manager, Monitoring & Evaluation Department
Mrs Manar Amin	Manager, IEC Department
Mohamed Abdel Aziz	Manager, Training Department
Sameh Alfred Saleeb	Manager, Management Systems Department
Ashraf Said	Manager, Personnel and Logistics Department
Prof Dr Madiha Said	Consultant, Monitoring and Evaluation Department

CRHP - University Research Corporation and sub-contractors

Henry C Reinhard, Jr	Chief of Party - URC
C Robert Snyder	Deputy Chief of Party for Planning - URC
Philip Schrefer	Practice Management Advisor - BDI
Dr Nadwa Rafeh	Deputy Chief of Party for Institutionalization - URC
James Jeffers	Social Finance Advisor
Sa'dani Soudi	Training Advisor - URC
Michael Forte	Medical Records Advisor - WMCI
Mark Schultz	Financial Advisor - WMCI
Dr Ahmed Heshmat	Quality Assurance Advisor
Dr Mohamed Shehata	Consultant
Dalia Zulficar	Hospital Finance Advisor
Madika Abdella Hassan	MIS Advisor

Credit Guarantee Company for Small Scale Enterprises (GGC)

Ahmad Abdel Salam Zaki	Chairman and Managing Director
Ms Amel Samy	Division Chief, Research and International Relations
Eissa Fathy Eissa	Assistant Investment Manager
Eng Radwan Ahmed Radwan	Director, Management Information System

Data for Decision Making Project

Dr A K Nandakumar	Resident Advisor, Harvard University Department of Public Health
Dr Hassan Salah	Research Associate, Harvard University Department of Public Health
Dr Mohamed Ibrahim	Coordinator, MOH/DOP

Dr Samir Mamfouz	Researcher, MOH/DOP
Mahmoud Yosky El Relai	Researcher, MOH/DOP
Fathy Mahmoud Madkour	Researcher, MOH/DOP
Hala Safwat	Researcher, MOH/DOP
Dr Samir Fouad	Researcher, MOH/DOP

Data Processing Services Company

Mohamed Samir Eleish	President
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Egyptian Medical Syndicate

Prof Dr Hamdy El-Sayed	President
Dr Ibrahim Moustafa	Medical Director for Health Insurance

Health Insurance Organization

Dr Nabil El-Mehairy	Chairman
Gen (ret) Faisal Taie	Supervisor of HIO-MIS Project
Dr M Rawash El-Dieb	Implementation Coordinator, Reengineering Project
Mary Iskandar	Application Development Director
Zeinal Alloub	Project Assistant

MAXIMUS

Leslie Graham	Chief of Party
Felix Meyer	Senior Advisor, Healthcare Management
John Villaume	Training Specialist
Hassam El Alfy	Computer Operations Manager
Jay Meere	Software Development - Data Conversion
Lena Dajani	Administrative Specialist

Ministry of Health

Dr Hassan Abou Zeid	Medical Director, Shark El Medina Hospital, Alexandria
Dr Mohammed Hiat	Deputy Medical Director, Shark El Medina Hospital
Dr Marey Yonnes	Hospital Director, Kafr El Dawar Polyclinic, Alexandria
Dr Abdel M A Shalaby	Deputy Director & Chief of Medical Staff, Kafr El Dawar Polyclinic
Ddr Khalil Fahmy Kahlil	Deputy Chief of Staff, Kafr El Dawar Polyclinic
Dr Abdel Hady A Sadek	Staff, Ob-Gyn Department, Kafr El Dawar Polyclinic
Dr Nabil Abdulmonem	Acting Director, 15 May Hospital
Dr Dalal El Tubgy	Head of Pediatrics Department, 15 May Hospital
Dr Labib M Kamal	Chief, Operating Room Department, 15 May Hospital
Dr Farid El Fallah	Surgeon, 15 May Hospital

Dr Ensaf El Malatawy	Head of Medical Records, 15 May Hospital
Dr M Allam Radwan	General Surgeon, El Kantara Gharb Hospital
Dr Ali Soliman Yamani	Urologist, El Kantara Gharb Hospital
Dr Mahdy Mohaved	Director, Embaba Hospital
Dr Nabil Besada	Deputy Director, Embaba Hospital
Dr Afaf O Helmy	Department of Planning, Coordinator DDM Project

Suez Canal University Faculty of Medicine

Dr Atef El Akhras	Vice Dean and Professor of Dermatology
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World Bank Team

Albert Sales	Team Leader for Egypt Assessment, Public Health Specialist, Human Resources, Middle East and North Africa Region, World Bank
Vincent Turbat	Health Economist, Economic Development Institute, World Bank
Daniel LeTouze	Senior Program Specialist, International Development Research Centre
Gilles Des Rochers	Economist

Annex 6

Response to Specific Questions in Scope of Work

PROJECT DESIGN

The August 1993 PP Supplement significantly reduced the magnitude of end-of project-status (EOPS) outcomes under Components One and Three. Given the continuing delays experienced in project implementation and contracting, is it still realistic to assume the achievement of these EOPS or were project design staff overly conservative in their estimates and should more ambitious EOPS targets be set?

Yes, it is still realistic to assume that most of the project purpose level EOPS will be largely achieved by the PACD. Data from DDM studies indicate that private sector payments for health services already account for a majority of health expenditures. Phase A facilities have an outside chance of recovering costs as indicated in the revised PP logframe. Phase B facilities offer the potential of a faster start, utilizing knowledge and experience gained in the Phase A facilities. HIO and CCO already cover more than 20 million people and HIO may soon be given responsibility for providing health insurance to children under age five. The MIS developed by HIO/Maximus is rapidly being extended to all HIO facilities and this should enable HIO to provide more cost-effective services. Quality of services is another issue which needs to be more fully addressed during the remaining life of the project. It is unlikely that 100,000 additional people will be using private sector prepaid health care services by the PACD. The proposed HMO at SCU-FOM is still in its formative stage. The Medical Syndicate covered many physicians at the start of the project so the net increase in coverage will be small.

With only 30 months remaining in the project, the focus should be on completing already planned tasks, not add new ones.

Mission strategy in the both the health and family planning sectors calls for increased targeting of assistance resources to underserved governorates in Upper Egypt. Should similar efforts be made in programming the remaining resources under the CRHP?

Some of the current monied resources are directed to governorates in Upper Egypt, such CGC credit guarantees and HIO facilities which have or will receive MIS assistance. Also, it is the Evaluation Team's understanding that one or more of the reopened Phase B hospitals will be located in Upper Egypt. There appears to be little additional scope within existing resources to allocate more resources to Upper Egypt.

Life of Project (LOP) funding for the project was significantly reduced under the PP Supplement, resulting in an extremely skewed technical assistance (TA) to local cost ratio. Given the continuing delays in contracting and mobilizing these TA resources following the approval of the PP Supplement and the highly technology transfer and institutional strengthening nature of the planned assistance, are currently programmed resources, both TA

and local costs, adequate to achieve even the more limited objectives called for in the PP Supplement?

Yes. The URC contract was finally approved in May 1995 and the full team of advisors is now on board. The contract contains ample funds for TA and local costs for currently contemplated activities. The Maximus contract for work with HIO might need to be expanded if HIO is required to insure all children under five years of age and if Maximus is asked to assist MOH and CCO in introducing HIO software and providing training for staff of those two institutions. Depending on what decision USAID takes regarding the pending contract procurement for the MIS with CCO, additional funds may be available for other project activities.

Given the highly fragmented approach adopted in contracting-required TA support and the ineffectiveness of the near dormant project steering committee, to what extent has cross-component coordination been assured and what corrective action might be undertaken to improve this process?

Cross-component coordination has been minimal. Even within Component One, there has been a lack of coordination among the five pilot CR facilities, resulting in little progressive learning. USAID should urge the Minister of Health to resuscitate the project steering committee. The USAID Project Officer should initiate regular, frequent meetings with the contractor Chiefs of Party as well.

Is the project as conceived likely to affect financing of curative care? Is there a more cost-effective, acceptable way to achieve the project goal and purpose?

There is growing recognition among MOH officials of the need to institute broad reforms of the health system. One area where the CRHP has already been influential, and has the opportunity of being even more influential, is in supporting policy dialogue and studies needed to provide policy makers with accurate information to consider policy reforms leading toward managed care. With the HIO already insuring 40% of all Egyptians and likely to be insuring over 50% if children under age five are added to the HIO responsibility. With other public sector and growing private sector health insurance programs, a large portion of the Egyptian population is already covered for financing of curative care. In the limited remaining life span of the CRHP, resources should focus on assisting the MOH and other ministries in the process of health care reform.

In general, how have project inputs contributed to improvements, both actual and perceived, in the overall quality of patient care services in the pilot facilities, CCO, HIO and the Egyptian health sector as a whole?

Overall, the CRHP inputs have had little impact on quality of patient care services. The five pilot facilities present a mixed picture. Where renovation has been completed, equipment installed and staff trained, there is certainly a perception of improvement in quality of care services. Shortages of medicines and disposable items, such as rubber gloves, raise doubts

about actual quality improvements Overall, the CRHP has concentrated on facility renovation, equipment and development of MIS, less focus has been given to date to activities more directly related to improving quality of care The pilot efforts under the Quality Assurance project should be expanded and introduced in a broader array of health facilities

COMPONENT ONE

1) Ministry of Health (MOH)

Does legislation issued governing implementation of cost recovery in the pilot facilities provide adequate delegations, authority and flexibility to enable effective implementation of cost recovery programs in these facilities?

Current legislation appears to be adequate to enable effective implementation of CR programs in selected facilities with the caveat that it is initially limited to two years The current legislation permits the MOH to grant to selected facilities autonomy regarding their management, institutional budget and personnel It also gives the facilities the authority to establish fees for services, and to determine how income will be used within three broad categories 47% must be spent on staff salary incentives, 50% on operating expenses and 3% should be sent to the MOH After two years, the facilities' will be reviewed, and it will be determined whether or not to extend CR autonomy While current legislation seems to be adequate for the time being, the test of time and practice is necessary to determine whether or not it is indeed sufficient and propitious

Has the MOH provided, in adequate quantities, the agreed upon staff, facilities and other counterpart resources to enable effective management and implementation of the project?

In general, the MOH has provided staff and facilities, though due to economic and administrative limitations, it has not been able to comply with the agreed upon amounts of these, nor has it provided other counterpart resources (such as computers, which appear to be very scarce in the MOH) AID has assisted the MOH in finding practical solutions to its difficulties to enable the CRHP to move forward

Has the MOH effectively communicated the objectives of the project to staff within the PD and other concerned MOH departments at the central level, governorate health department and pilot facilities personnel and the communities served?

The MOH has communicated the objectives of the CRHP fairly well to the PD governorates and pilot facilities The PD marketing department has organized public relations and publicity campaigns in the communities surrounding the pilot facilities General knowledge concerning cost recovery seems to be widespread Nevertheless, specific understanding of the goals and operational philosophy do not yet appear to be sufficiently disseminated

Have the required analyses, management and clinical operation system development and implementation, and related training activities comprising the proposed cost recovery (CR) facility conversion model been carried out in the pilot facilities?

The CR conversion “model,” with the required analyses, development and establishment of the management and clinical quality assurance systems and related training activities, has not yet been fully implemented at any of the pilot facilities. Different aspects of the analyses, systems and training have been implemented at different facilities. For example, the clinical quality assurance system has been partially initiated at only one of the five facilities, a financial management system has been introduced at three of the five facilities, all of the facilities have received initial training in marketing and public relations, etc. In addition, some aspects seem to have been done in a partial or perfunctory manner. For example, the business plans were not plans as such, but rather presented data concerning possible target populations or catchment areas, possible demand patterns, competitors, etc. It appeared that the “business plans” as presented, provided background information with which to make a plan, though some of the data was inadequate (e.g., claiming that the metropolitan area of Cairo constitutes a catchment area for a hospital is impractical).

Given the composition of the CR facility conversion model, do the indicators for success, identified in the project paper, as amended, continue to be valid and effective measures against which to monitor and assess pilot facility progress in implementing cost recovery and overall progress toward achievement of facility self sufficiency? What alternative or additional measure might the USAID and the MOH wish to consider?

The original indicators for success for the conversion model should be reconsidered. The EOPS indicators for the facilities in the PP are the following: Facilities will cover 100% of non-personnel operating costs, 80% of equipment depreciation, and 30% of building depreciation from private sector payments. It is not clear that these indicators are practically attainable. It would be more practical to focus on non-personnel operating costs, and equipment and building maintenance and repair. Also, one of the major concerns was related to improving the quality of medical services, and there are no indicators relating to this. Possible indicators could be the increase in the number of patients served, and the proportion of repeats. Also, the impact on accessibility for poor patients of the CR system requires further study, and perhaps an indicator should be developed related to this question.

Have Phase A pilot facilities progressed in implementing cost recovery systems in their facilities and achieving identified success criteria?

The entire CR conversion model has not yet been fully implemented at any of the pilot facilities, and none of them has yet accomplished the success criteria. Though some of the CR systems have been introduced at some of the facilities, and some progress has been achieved, as yet there is no data concerning the progress achieved to date in completing the success criteria.

Has project financed facility renovation, biomedical equipment and start-up funding support contributed to successful implementation of cost recovery in the pilot facilities?

The project financed facility renovation, biomedical equipment procurement, and start-up funding support have contributed to successful partial implementation of cost recovery systems in some of the pilot facilities. Since the CR systems are in process of being established, it is still too early to judge the impact of these measures. Without doubt, facility renovation has demonstrated significant benefits at three of the five facilities, both in terms of stimulating and improving the morale of staff, and in attracting more clients. One of the facilities does not seem to have benefitted to a great degree, and renovations at the fifth facility have not yet been finished.

Has the Project Directorate (PD) demonstrated the ability to identify requirements and effectively coordinate the programming and delivery of the necessary assistance to the pilot facilities?

In some areas, the PD has demonstrated some ability to identify requirements and effectively coordinate the programming and delivery of the necessary assistance to the pilot facilities. This was demonstrated most notably by the nursing, marketing and PR departments, and to a lesser degree by the other departments. It should be noted that the PD has not been appropriately trained and assisted to develop the skill and capabilities required to comply with these needs.

Have the technical assistance needs of the MOH/PD and the pilot facilities been effectively addressed?

The TA needs of the MOH/PD and the pilot facilities have been partially addressed so far. As mentioned previously, the CR conversion model has only been partially implemented in some of the facilities to date. Concentrated effort is required to prepare the MOH/PD to perform effective needs assessments, organize and conduct trainings and realize motivational and facilitative supervision.

Has assistance provided under the project enhanced the capacity of the PD, and/or other concerned MOH departments, to carry out required analyses and modify/design/implement management and related clinical operating systems to replicate CR facility conversion activities in other MOH facilities?

Project assistance has been partially effective in enhancing the capacity of the PD to carry-out required analyses and training. Unfortunately, no other related MOH departments have been included in project activities. Also, neither the PD nor other MOH departments have received assistance or training to modify/design/implement management and related clinical operating systems to replicate the CR system in other MOH facilities. This is partially due to the lack of definition of the complete CR conversion model, and the lack of experience of full implementation of the model, and partially due to the lack of specific efforts to train the PD or other MOH departments in these areas.

What is the likelihood that the MOH will be in a position to promote/replicate the CR process in the future, especially after the CRHP ends?

The political resolve to promote and replicate the CR process seems to be well established in some MOH functionaries, but it is not clear how generalized it is. The MOH as a whole has not been indoctrinated and trained in CR and the implementation of CR systems. While the PD may have competent personnel, it has not been adequately prepared and trained to provide the guidance, TA and training required to guide, establish, motivate and supervise CR systems throughout the MOH system. In addition, it is not clear that the PD, as currently structured, can feasibly become a functional unit within the MOH.

What is the actual and potential effect of CR on the utilization of MOH facilities by the poorer members of society?

There is little data concerning this question, and it has generally not been addressed as yet. Experiences in other countries with fees-for-services systems have shown a decrease in accessibility to health services for the poorest segments of society. The implications of CR for the poor requires careful study. Fees-for-services, in general, is not a good solution to the health financing problem. Nevertheless, it is a good beginning to improving the efficiency and quality of health services, and is a step along the way to managed care, which has the potential of better serving the interests of the poor.

2) Directorate of Planning (DOP)

To what extent have ongoing data collection and analysis activities, and/or preliminary findings emanating from these efforts, assisted in clarifying MOH policy and institutional reform priorities and building increased awareness of and support for action on these priorities both within and outside the MOH?

The efforts of the DDM project have been valuable and fruitful. The results of studies and analyses do not appear to have been disseminated widely enough, neither within nor outside of the MOH. Collaboration with the DDM project and the other components of the CRHP should be increased and strengthened.

Have required baseline data sets for public and private sector allocations and expenditures for health care been established for key EOPS outcome measures and plans or systems developed to enable assessment of project impact on these data?

The MTE team did not observe evidence that the required baseline data sets had yet been established. The DDM project is assisting the DOP in the process of preparing some of the baseline data sets.

Have DOP staff been trained and systems/methodologies developed to enable the MOH, in the absence of outside technical assistance, to periodically update and track changes in these data sets?

The DOP staff has been trained to develop and prepare baseline data sets. While specific systems/methodologies to enable the MOH to periodically update and track changes in these data sets were not observed, it is presumed that the DOP currently has the expertise to develop the systems.

COMPONENT TWO

COMPONENT TWO QUESTIONS

C Component Two

1 Health Insurance Organization (HIO)

How appropriate are the software application modules that Maximus is developing to the needs of HIO, considering recent changes in HIO's beneficiary population, size, and utilization of contracted services? Are there specific applications not currently envisioned of greater managerial value/priority?

In 1993, the addition of 16 million school-age children as HIO enrollees quadrupled the size of HIO's beneficiary population. This legislation fundamentally changed the nature of the HIO organization from that of being primarily a provider of health care to that of being primarily a payer for contracted services. In the future, HIO may retain its dual payer/provider role, or it may become an administrator of a social health insurance system for Egypt. It seems certain that HIO will have the responsibility for purchasing health care for a large portion of the population.

The MIS should assist HIO to make more informed choices in health care investments. The system captures the data required for analyses used to assess managed care options (beneficiary demographics, diagnoses, treatments, and costs). Software applications in beneficiary eligibility, reimbursement comparison, risk assessment, prospective and retrospective utilization review, and provider profiles would have managerial value and should be given priority. Setting up the software for a new report is fairly easy, the real challenge is institutional, not technical. For the information technology to be truly useful, HIO managers and administrators will need to use quantitative managed care techniques.

The following table shows the location of software modules currently being developed under the Maximus contract

Location					
MODULE	HQ	Branch	Polyclinic	Hospital	Store
Beneficiary Reg /Elig Check	X	X	X		
Drug Control & Inventory	X	X	X	X	X
Patient Records			X	X	
Cost Accounting	X	X	X	X	
Medical Quality Assurance			X	X	
Admission/Discharge/Transfer				X	
Contracted Pharmacy		X			
Periodical Medical Exams		X			
Management Reporting	X	X			
Computer Operators	X	X	X	X	
Contract Providers		X			
Aggregation		X*			

* For installation only at remaining branch facilities which do not receive automation at the polyclinic and hospital levels

Note Most modules contribute management data Modules contributing management data only at the headquarters and branch levels are not noted here as headquarters or branch modules

How well qualified is the HIO to review the technical aspects of Maximus' system and applications developments?

HIO seems to be able to review the technology to see whether it works correctly Lack of experience makes HIO less well equipped to assess the options for systems implementation and whether the best option has been chosen

How well prepared will the HIO be to assume financial responsibility for the continuing support requirements of the MIS, particularly in the areas of computer system supplies, telecommunications costs and equipment maintenance?

The MIS will be installed in approximately one half of HIO's facilities and branches Maximus has estimated the following annual operating costs for these facilities (in US\$)

Maintenance (hardware and software)	
Contract	192,343
Time and Materials	75,000
Supplies	306,764
Telecommunications	64,937
Total	639,044

HIO's willingness to assume this expense will obviously depend on the value it places on the MIS. HIO personnel are eager to decrease inappropriate use of resources through automated utilization checkguards. It will be useful for the HIO MIS department to track savings realized through automation, so that a case can be made for investing in information services.

Should HIO wish to install the system in its remaining facilities, it would incur a capital expenditure for hardware procurement and site preparation similar to that for the first half of the sites: \$5 million. The annual operating costs would double.

How well prepared will the HIO be to utilize the information generated by the proposed MIS for decision making?

Strategic planning and policy CRHP has begun assistance for decision making in these areas. The evaluation team has recommended that this assistance include information available from the MIS. If this collaboration proceeds successfully, one outcome should be enhancement of HIO's ability to use the MIS in these areas.

Facility management HIO's facilities have rudimentary financial and quality assurance systems. Inclusion of HIO staff in trainings directed toward these skills, as recommended in the evaluation, should increase their skills in these areas.

Pharmacy control functions Control of pharmacy scripts is an area of major concern, since pharmaceuticals account for 60% of HIO's expenses. The pharmaceuticals module for HIO's own pharmacies should help control unnecessary and inappropriate scripts. Control of scripts dispensed through contracted pharmacies, which is considered to be an area of outright fraud, should be strengthened by automation of contracted pharmacies, as planned by HIO and supported by the evaluation team.

How well prepared technically will the HIO be to sustain and continue the development and expansion and functioning of the MIS when Maximus concludes its work?

Maximus is developing a modular, open-ended system with plug-in additions, reusable code libraries, and programming and nomenclature standards that facilitate systems development. HIO staff programmer/analysts work side-by-side with Maximus staff and have designed and developed modules independently. The real constraint on this technology transfer may be economic and not technical. HIO may not be able to pay technical personnel sufficient salaries to retain them.

Is the pace of development and roll out of the system adequate to have a fully functioning MIS in place at the end of the Maximus contract?

Yes More than half of the roll out is scheduled for the first nine months of 1996, and the remaining scheduled for completion by mid-1997 Testing, installation, and operations training seem to be proceeding at the required pace The real question is whether HIO management will be able to use the system effectively in making decisions

Is the HIO adequately fulfilling its responsibilities to enable Maximus to function in an efficient manner?

Maximus mentioned no particular difficulty when queried, and none was observed HIO's management changed recently, and earlier problems have apparently been resolved

2 Cairo Care Organization (CCO)

To what extent has pre-HMIS implementation support provided to date to the CCO increased the receptivity and capacity of CCO staff to automated management systems, in general, and the proposed HMIS in particular?

In answering this question, it is important to distinguish between pre-HMIS support that has been provided to the CCO at the corporate and managerial level and to the CCO clerical staff at each of the individual provider institutions At individual CCO hospitals the pre-HMIS implementation support has clearly increased the receptivity and enthusiasm of CCO clerical staff to automated management systems The medical staff has been less cooperative in adopting the new procedures and coding systems

The prototypes were not integrated into a hospital-wide network, and not all modules have been implemented at the four CCO test hospitals Therefore, it is difficult to know whether CCO staff comprehend the potential of the proposed HMIS to support both patient and institutional management

Other than the presence of a MIS coordinator through whom communications occur, the evaluation team found no evidence of pre-HMIS support at the CCO corporate level This lack of support by the contractor at the corporate level did not appear to be the contractor's fault but rather reflects a lack of interest of the top CCO administrators in having a corporate-level HMIS, i e , an HMIS that is networked with the individual hospitals as a multi-institutional system

Does the prototype management systems developed by the CCO have applicability for MOH, HIO or other implementing agency facilities of similar function? How might these systems be more effectively exploited?

Several standalone prototypes were built as examples to engage CCO staff in the design of their HMIS CCO clerical staff continue to use the automated prototypes, because they make clerical

tasks easier. The prototypes are incomplete (there is no patient medical records module) and unintegrated (for example, the inpatient and outpatient modules do not talk to each other). Additional investment in software development would be required to turn these prototypes into a facility management system. CRHP has already invested in software for facility management, the HIO/Maximus system. There has also been substantial additional investment in system documentation and institutionalization of training and technical support within HIO. There seems to be no reason for CRHP to support the development of the CCO prototypes into a facility management system, since the investment in HIO/Maximus has already generated the product required.

Has pre-implementation support been effective in strengthening CCO in-house MIS department and staff capabilities?

Pre-implementation support has created an enthusiastic technical support staff at each facility. This staff can answer questions about the operation of the prototypes, and they have some computer skills.

How effective was CCO training support to the MOH in the area of nursing care? Are there other areas where CCO expertise and training capacity could be exploited to enhance capacity of PD or pilot facility staff?

CCO organizes training for critical and specialty care nurses. CCO seems ready to train nurses for a fee.

COMPONENT THREE

Are current EOPS targets for private sector service expansion and new service delivery models achievable, given earlier delays in project implementation and contracting of TA resources?

The EOPS targets are not achievable given the delays in project implementation. It should also be noted that this does not necessarily reflect on the success of the project. Since the health sector has not been static since the project was developed, it is no longer clear that these are the correct targets that the project should be attempted to meet.

To what extent have CGC loan guarantees issued to date contributed to the achievement of these EOPS targets?

The CGC loan guarantees have not contributed to the achievement of these EOPS targets. To date the CGC has been slow in meeting its target of guaranteeing 5,000 loans. There is no evidence to demonstrate that the loans which have been provided have greatly increased the distribution of practitioners in disadvantaged areas or have increased the number of female providers. Further analysis should be done to better understand how the loans guaranteed have been utilized.

How successful has the program been in attracting female loan recipients? How can performance in this area be improved?

The CGC has not been successful at all in attracting female loan recipients. Before the CGC can target female providers there needs to be greater understanding of the types of practices in which female providers typically participate. Once this is understood the CGC will be better able to market to females. In this assessment it will be important to examine whether females providers need the CGC program to obtain credit or if they have access through other mechanisms.

Has the availability of the CGC guarantee program resulted in increased willingness of commercial banks to extend credit to health providers?

It does not appear that the CGC program has increased the willingness of banks to extend credit to health providers. Although there are a large number of banks in the program most have only provided one or two loans. The majority of all loans are through one bank.

Are the recently negotiated performance based provisions of the CGC agreement likely to increase the scope, number and appropriateness of CGC guarantees?

Yes, these will most certainly assist the CGC in nearing the indicators of success as defined in the Project Paper Supplement. The most important aspect of the new USAID agreement is to let CGC keep LE 1500 per loan guaranteed to use for marketing and training. In addition, the agreement allows CGC to keep an increased percent of interest (from 10 to 20%) for administrative costs. However, without understanding the current status of the private sector it is premature to attempt to expand it.

Are the activities envisioned to date likely to produce the type of replicable systems/models that will create the desired multiplier effect on the expansion of cost-effective, private sector service provider and financing mechanisms? If not, what options are available to the project to address this problem, given the constraints of time (PACD) and resources?

The activities envisioned in the project, which focus on work in the Suez Canal University and the Medical Syndicate, will assist in creating cost effective private sector service provider and financing mechanisms. However, by themselves this will not be enough. The project must also build the capacity for the transition to managed care within the sector as a whole. Technical assistance should be directed to improving the understanding of managed care concepts and practices, as well as developing the technical skills needed for implementing managed care. One of the most valuable contributions USAID and its contractors can make would be to organize seminars and workshops on important managed care principles using resident advisors as well as consultants working in Egypt on a short-term basis. Access to current publications on managed care and other health related issues should be improved. The project should consider establishing a documentation center open to the MOH, CCO, HIO, and the private sector. The project should also establishing a close working relationship with a research and policy institution, such as the Social Research Center at the American University of Cairo.

Annex 7

Glossary of Terms Related to Managed Care

DEFINITIONS

Managed Care Generally refers to personal health care that is financed through prospective payments and is subject to utilization management and review. Prospective payment means that provider organizations, e.g., hospitals, clinics, etc., receive (or know) in advance the payment they will receive for health care services. Prospective payments are generally paid as per-case or capitation payments. The fact that providers can expect fixed amounts for their services acts as an incentive for containing costs and improving efficiency in delivering care. In contrast, retrospective reimbursement schemes permit providers to charge the patient or the health insurer for the costs of care after it has been given. This reimbursement procedure is known as fee-for-service and does not have the same resource-conserving features of prospective payment.

Health Maintenance Organization (HMO) A prepaid, organized managed care plan in which beneficiaries receive services through a system of affiliated hospitals, clinics, physicians, etc. Comprehensive benefits are financed by prepaid premiums and limited copayments.

Gatekeeper A primary care provider, e.g., family physician, general practitioner, nurse practitioner, who is responsible for coordinating all non-emergency treatment provided for a health plan beneficiary.

Primary Care Primary care refers to personal, curative or preventive health care services which most people need most of the time for most of their health concerns.

Secondary Care Care from specialists that ideally is arranged through referral after preliminary evaluation by a primary-care practitioner.

Capitation Payment A fixed, periodic payment made to providers for access to a specified set of health care services or benefits. Payments are usually made on a per-member, per-month basis, and new payment levels are generally established annually.

Copayment A small fixed amount per service that is paid by the beneficiary. Copayments are generally used to discourage frivolous use of services.

Per-case Payment A type of provider reimbursement in which the hospital or physician is paid a specific amount for each case treated, regardless of the extent of services.

Fee-for-service Reimbursement of providers on a service-by-service basis rather than on a salaried, per-case or capitated basis.

Utilization management and review essentially refer to procedures to identify whether health care services are being provided inappropriately or in excess. Managed care organizations make extensive use of these procedures in order to reduce utilization of services and costs. Some examples of utilization management include gatekeeping, referrals, and second opinion requirements. Some examples of utilization review include profiling and physician peer review.